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Integrated chainsaw assessment tool – TRAINER VERSION

FWP Tree felling

Candidate's details

Candidate's name	
Employer / company	
Assessment location	

Assessment summary

Performance	
Section 1: Background experience	Taken into account <input type="checkbox"/> Not applicable <input type="checkbox"/>
Section 2: Knowledge tests	Satisfactory <input type="checkbox"/> Not satisfactory <input type="checkbox"/>
Section 3: On-site documents	Satisfactory <input type="checkbox"/> Not satisfactory <input type="checkbox"/>
Section 4: Practical demonstrations	Satisfactory <input type="checkbox"/> Not satisfactory <input type="checkbox"/>

Results	Competent	Not yet competent	Not assessed
<i>FWPCOT2254: Maintain chainsaws</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>FWPCOT2273: Trim and cut felled trees</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>FWPCOT2275: Fell trees manually (basic)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>FWPCOT3350: Fell trees manually (intermediate)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>FWPCOT3351: Fell trees manually (advanced)</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			

Statement: I agree that I was ready to be assessed, that the assessment process was explained to me			
Candidate's signature		Date	

Assessor's signature		Date	
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Line drawings of chainsaws, operators and chainsaw components provided courtesy of Husqvarna Australia.

All other images drawn or photographed by Workspace Training staff and associates.

Answers to knowledge test questions in this assessment tool are contained in the manual: *Chainsaw Operation – Beginner to Advanced*.

Section 1: Background experience

Previous experience

Indicate below how long you have been using a chainsaw for, and what types of work you have been carrying out with it. Where relevant, state the positions or job roles you held if you were using the chainsaw as part of your employment.

Note that you will still be required to demonstrate ‘current competency’ in the performance criteria for all units relevant to your level of assessment (or re-assessment) in chainsaw operation.

Duration	
Types of work	
Job role/s	

Initial and re-accreditation assessments

Indicate below whether you already hold any chainsaw-related units of competency, and also whether you are undertaking **initial assessment** (assessment for the first time) or **refresher assessment** (as part of a periodic refresher course and re-accreditation).

Your trainer may ask you to provide documentary evidence of your existing accreditations if they were issued by a different RTO (registered training provider). However, note that there is no provision for ‘recognition of prior learning’ in the practical demonstration events – see Section 4 for a full explanation.

Unit of competency	Already held	Initial assessment	Refresher assessment
<i>FWPCOT2254 Maintain chainsaws *</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>FWPCOT2273 Trim and cut felled trees *</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>FWPCOT2274 Fell trees manually (basic) *</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>FWPCOT3347 Fell trees manually (intermediate) *</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>FWPCOT3348 Fell trees manually (advanced) *</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	N/A	N/A
	<input type="checkbox"/>	N/A	N/A
	<input type="checkbox"/>	N/A	N/A

* You may include superseded versions of these competencies. Note that if you hold a superseded unit and are seeking re-accreditation, your new statement of attainment will list the updated unit of competency.

Section 2: Knowledge tests

The knowledge tests on the following pages are designed to be undertaken sequentially, starting with chainsaw maintenance and progressively working through the various levels of chainsaw operation up to advanced tree felling. The sequence is as follows:

Part A: Maintenance – covering *FWPCOT2254: Maintain chainsaws*

Part B: Crosscutting – covering *FWPCOT2273: Trim and cut felled trees*

Part C: Basic tree felling – covering *FWPCOT2275: Fell trees manually (basic)*

Part D: Intermediate tree felling – covering *FWPCOT3350: Fell trees manually (intermediate)*

Part E: Advanced tree felling – covering *FWPCOT3351: Fell trees manually (advanced)*

Your trainer will ask you to commence at Part A and finish at the level of chainsaw operation you are undertaking in your course. Each test builds on the material covered in the previous tests, so it is important that you complete all preceding parts unless your trainer has given you an exemption.

If you already hold accreditations in chainsaw operation, your trainer may grant you 'Recognition of prior learning' (RPL) in those parts of the test. However, if you are undertaking refresher training (also called 're-accreditation') in certain units, it is likely that you will still be asked to complete all parts of the knowledge test that lead up to the level you are being re-assessed in.

Units not covered in this assessment tool

The following FWP chainsaw units are not covered in this assessment tool, since they do not form part of the progression of chainsaw levels listed above:

- *FWPCOT3301: Trim trees using a pole saw*
- *FWPCOT2259: Cut materials with a hand-held chainsaw.*

Your trainer will use a separate assessment tool if you are undertaking either of these units. The same applies to the following two units from the AHC Training Package:

- *AHCMOM213: Operate and maintain chainsaws*
- *AHCPCM205: Fell small trees*

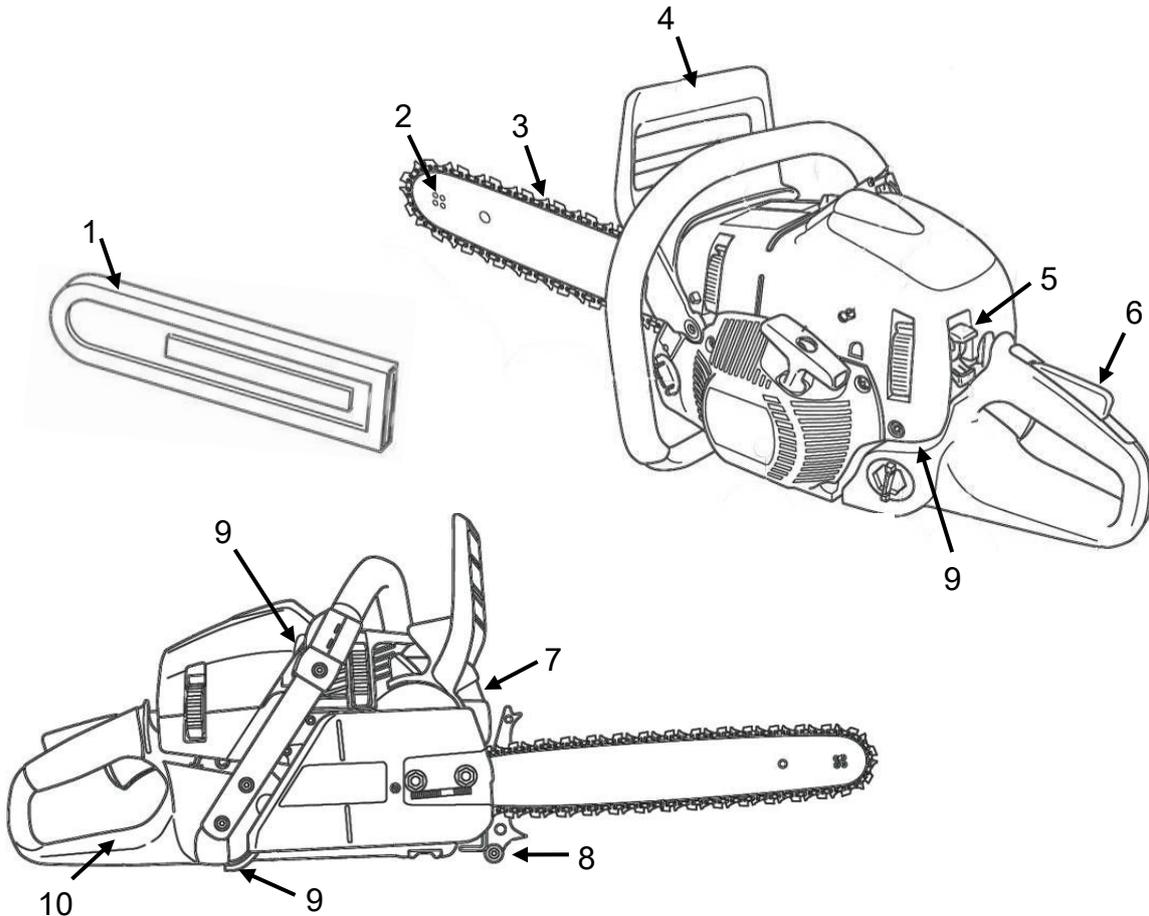
<p>Parts to be completed</p> <p>Note to trainer: Indicate in the table at right which knowledge tests the candidate should undertake by putting ticks in the appropriate boxes.</p>	<input type="checkbox"/>	Part A: Maintenance
	<input type="checkbox"/>	Part B: Crosscutting
	<input type="checkbox"/>	Part C: Basic tree felling
	<input type="checkbox"/>	Part D: Intermediate tree felling
	<input type="checkbox"/>	Part E: Advanced tree felling

Part A: Maintenance

1. Chainsaw and site safety

a) The diagrams below have arrows pointing to 10 common **safety features** on a chainsaw. Write each of the numbers in its correct space in the table underneath.

Note that where the same number appears several times, it refers to a feature that occurs in a range of locations on the chainsaw.



No.	Feature
4	Chainbrake / front hand guard
5	Stop control
6	Double action throttle
10	Rear hand guard
9	Vibration dampeners

No.	Feature
1	Guide bar cover
7	Muffler / spark arrester
3	Reduced kickback chain
2	Sprocket nose guide bar
8	Chain catcher

- b) Set out below are some **safety** and **warning** signs that are often used in chainsaw operator and maintenance manuals.

Match up each sign with its correct meaning by drawing an arrow between them. Then write down one example of an activity or situation where you would need to apply this safety measure while you're on-site doing chainsaw work.

The first two examples are done for you.

	Wear a hard hat Example: When working in bushland, or under other hazards that may fall from above
	Wear safety boots Example: At all times while on-site
	Wear hearing protection Example: While operating the saw (or working near noisy machinery)
	Wear eye protection Example: While operating the saw (or sharpening the chain with a grinder)
	Wear high-visibility clothing Example: At all times while on-site
	Wear cut-resistant trousers (or chaps) Example: While operating the saw
	Keep clear of naked flames Example: While mixing fuel or re-fuelling the chainsaw
	Wear gloves Example: When handling branches or sharp objects

c) Answer the following questions by ticking the correct box in each set of options.

1) What is the best thing to do if you find that your chainsaw has a problem that you **can't fix** straight away?

- Put it away and don't use it
- Tag it, and take it to your supervisor or maintenance person
- Use it carefully, and shut it down if something unsafe happens

2) When should you look out for **hazards** in the work area that might be unsafe?

- Whenever the supervisor says so
- Once per month, during the routine site inspection
- Before starting any new task, and regularly while you're working

3) Under the WHS law, who do you have a **duty of care** towards, in terms of working safely and taking care that your actions don't cause harm?

- Only yourself, because everyone else also has to look after themselves
- Only the client, because they have contracted you to work professionally
- Anyone who might be affected by your actions

4) Why must **petrol** be stored in approved sealed containers, and carried in a secure, well ventilated place on the vehicle?

- Because it is expensive to buy, so any spills would be costly
- Because it is classified as a 'dangerous good' and is highly flammable
- Because it evaporates very quickly, so it must be kept tightly sealed

d) Name the **contents** of the two fire extinguishers shown below. Also state what types of fires they are designed to put out, and the types of fires they should not be used on.

	Colour: Red		Colour: Red with white stripe
	Contents: Water		Contents: Dry chemical/powder
	Types of fire: Class A: wood, paper, cloth, rubber, plastics, etc		Types of fire: Classes: A,B,C,E (most fires)
	Must not be used on: Cooking oils, fats (Class F) and electrical fires (E)		Must not be used on: Cooking oils, fats (Class F)

2. Fuelling up

- a) Some **two-stroke oil** manufacturers specify that the oil should be mixed with petrol at a 25:1 ratio.

Other products (particularly oils distributed by chainsaw manufacturers) specify a 50:1 ratio.



- 1) Let's say you had a **5 litre** container of petrol.
How much oil should you add if the mixing ratio is **25:1**?

You may use a calculator to work out the answer, but you should write out the full calculation below.

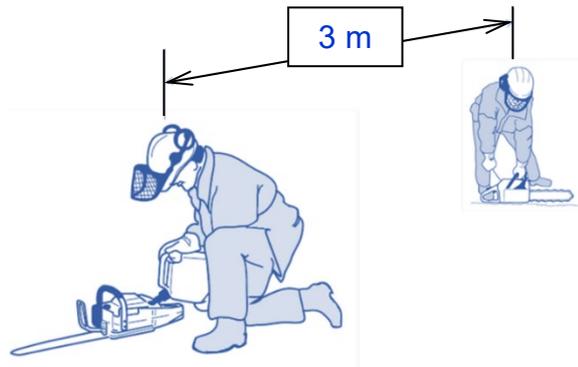
$$5 \text{ litres} \div 25 = 0.2 \text{ litres} = 200 \text{ ml}$$

- 2) Now let's say the oil specifies a **50:1** mixing ratio. How much oil will you need to add to the same **5 litre** container of petrol. Again, show all calculations.

$$5 \text{ litres} \div 50 = 0.1 \text{ litres} = 100 \text{ ml}$$

- b) What is the **minimum distance** you should be from the **refuelling area** when you start up the saw?

Write your answer (in metres) in the box at right.



3. Environmental care

- a) Answer True or False to the following questions by ticking the correct box.
- Old fuel, cleaning fluids and other hazardous liquids should never be thrown out in the normal skip bin, but should be put into **sealed containers** and sent to an authorised waste collection centre.
 True False
 - It is OK to store **hazardous chemicals**, such as chainsaw fuel, in drink bottles or unmarked containers as long as you put them away in a cupboard after you finish using them.
 True False

3) **Safety data sheets** (SDSs) are issued by manufacturers of hazardous products. These documents cover safety issues and also describe the methods for cleaning up spills and disposing of left-overs.

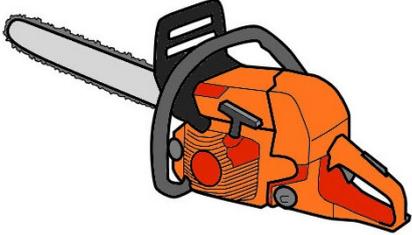
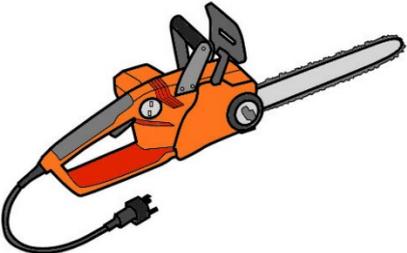
True False

4) If an **oil spill** occurs in the workshop or on the driveway, the best way to clean it up is to hose the oil into the stormwater drain and flood the affected area with water.

True False

4. Power sources

a) The three chainsaws shown below use different types of **power sources**. Name the power source for each one, and state one or two major advantages and disadvantages to the operator of using that type of power.

Chainsaw	Power source	Major advantages	Major disadvantages
	2-stroke petrol	Most powerful Easily transportable	Fuel is flammable Needs to be mixed
	240 V (mains) electricity	Less noisy than petrol saw Lightweight No fuel required	Lead can get in the way Needs 240V power Potentially dangerous near water
	Battery	Easy to carry (and for tree climbers to use) No fuel required	Battery needs recharging regularly Not very powerful

5. Petrol chainsaw maintenance

- a) Chainsaw maintenance is carried out at different times, depending on the part being serviced and the manufacturer’s recommendations.

Below are three common terms used by manufacturers to describe **maintenance intervals**. Tick the box that provides the correct definition of each term.

- 1) **‘As often as necessary’** (particularly when describing how often the chain should be sharpened)

- could be up to several times a day, depending on the cutting conditions
- one or twice per month
- only required with every major service

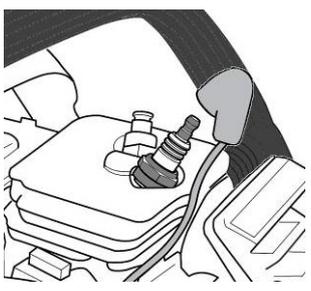
- 2) **‘Daily maintenance’**

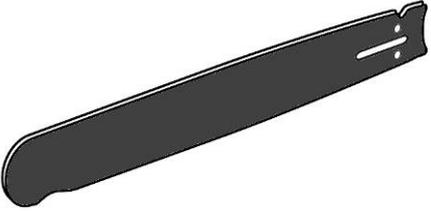
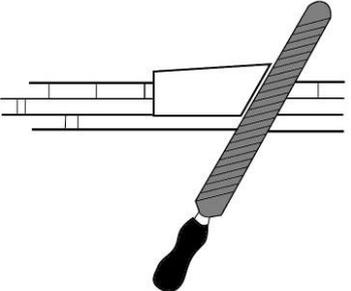
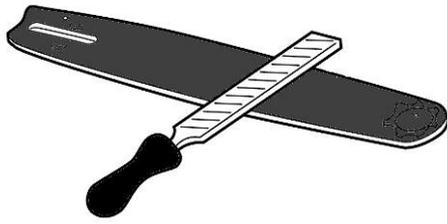
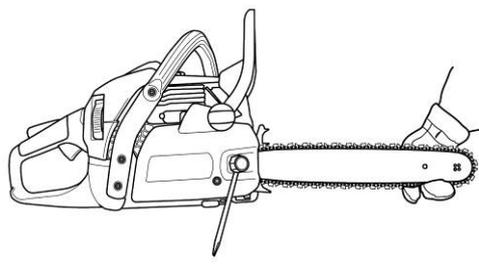
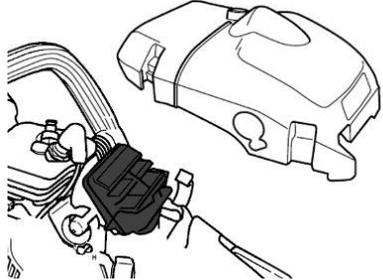
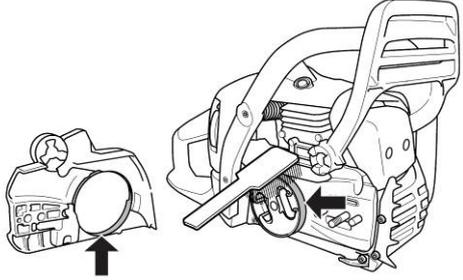
- at the beginning of each working day, before starting the saw
- at the end of each working day, as part of the routine clean-down
- after every 8 hours of use, even if that takes one month to accumulate

- 3) **‘Periodic maintenance’**

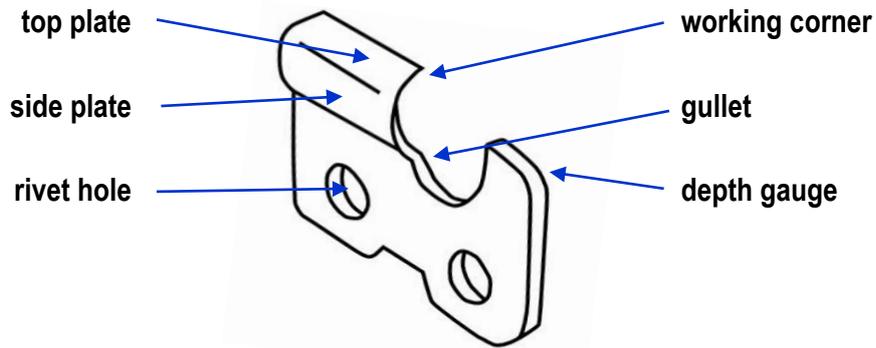
- has the same meaning as ‘daily maintenance’
- after every 20 hours of use (or more often if needed)
- after every 80 hours of use (or more often if needed)

- b) Tick the correct box for each of the maintenance tasks described below to indicate how often it should be done.

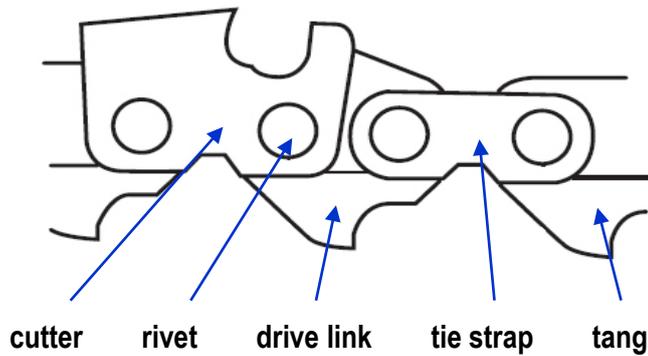
	<p>1) Cleaning out the guide bar groove</p> <p><input type="checkbox"/> as often as necessary</p> <p><input checked="" type="checkbox"/> daily maintenance</p> <p><input type="checkbox"/> periodic maintenance</p>
	<p>2) Checking or replacing the spark plug</p> <p><input type="checkbox"/> as often as necessary</p> <p><input type="checkbox"/> daily maintenance</p> <p><input checked="" type="checkbox"/> periodic maintenance</p>

	<p>3) Checking the guide bar for wear or damage</p> <ul style="list-style-type: none"> <input type="checkbox"/> as often as necessary <input checked="" type="checkbox"/> daily maintenance <input type="checkbox"/> periodic maintenance
	<p>4) Sharpening the chain</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> as often as necessary <input type="checkbox"/> daily maintenance <input type="checkbox"/> periodic maintenance
	<p>5) Removing burrs from the guide bar</p> <ul style="list-style-type: none"> <input type="checkbox"/> as often as necessary <input checked="" type="checkbox"/> daily maintenance <input type="checkbox"/> periodic maintenance
	<p>6) Tensioning the chain</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> as often as necessary <input type="checkbox"/> daily maintenance <input type="checkbox"/> periodic maintenance
	<p>7) Cleaning the air filter</p> <ul style="list-style-type: none"> <input type="checkbox"/> as often as necessary <input checked="" type="checkbox"/> daily maintenance <input type="checkbox"/> periodic maintenance
	<p>8) Cleaning the clutch and drive sprocket</p> <ul style="list-style-type: none"> <input type="checkbox"/> as often as necessary <input checked="" type="checkbox"/> daily maintenance <input type="checkbox"/> periodic maintenance

- c) Draw an arrow between each of the terms shown below and the part of the **cutter** it refers to in the diagram.



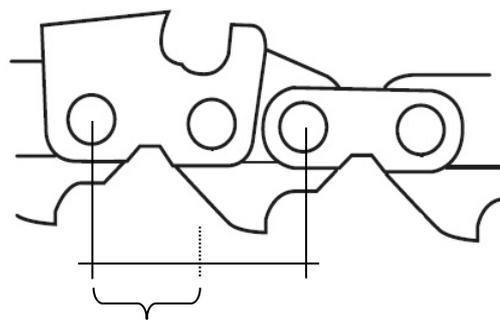
- d) Match up the terms with their correct part of the **chain** below by drawing arrows between them. If there is more than one instance of a particular part, draw the arrow to one example.



- e) If you take the **distance between 3 rivets and divide by 2** (as shown at right), what are you measuring?

Tick the correct box below.

- pitch
 drive link length
 cutter size



- f) What does the **gauge** of a chain refer to? Tick the correct box below.

- diameter of the rivet
 thickness of the cutter
 thickness of the tang

- g) The photo below shows the mounting end of a **guide bar**.
- 1) Draw an arrow on the guide bar pointing to the **oil hole**, and write 'oil hole' beside it.
 - 2) What is the purpose of the **oil hole**? Tick the correct box below.
 - it is where you lubricate the guide bar manually with an oil can during routine service
 - it sucks oil and dirt out of the guide bar groove while the saw is running
 - it allows oil to be injected into the guide bar groove to lubricate the chain while it's running
 - 3) The abbreviation 'RSN' is printed on the side of the guide bar. What does RSN stand for? Tick the correct box.
 - right side nut
 - replaceable sprocket nose
 - routine service number



- h) Answer the following questions about the **guide bar** and **chain**, by referring to the information printed on the side of the guide bar above.

- 1) What is the **effective cutting length** of the guide bar?
Give your answer in inches and centimetres.

20	"
50	cm

- 2) Fill in the table below to indicate the **pitch**, **gauge** and number of **drive links** in the chain. For the pitch and gauge, give your answers in inches.

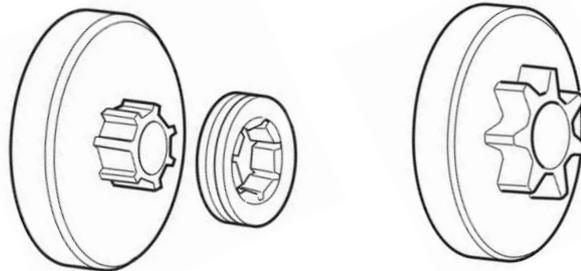
Pitch: 3/8	Gauge: .058	No. drive links: 72
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- i) There are three different **cutter profiles** shown in the left hand column below. Match up each profile with its correct name by drawing an arrow between them. Then match up the terms with their correct descriptions in the right hand column with another set of arrows.

Profile	Term	Description
	Semi-square ('semi-chisel') profile	Large cutting corner. Stays sharp for longer, but makes the cutting speed slower than the other profiles.
	Square ('chisel') profile	Compromise between the other two profiles in terms of cutting speed and ability to stay sharp.
	Round ('chipper') profile	Very fine cutting corner. Cuts faster, but more easily blunted by abrasive materials and more difficult to sharpen.

- j) The drawings at right show a **spur sprocket** and **rim sprocket**.

Write the correct name for each one underneath its drawing.



Rim sprocket	Spur sprocket
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- k) For each of the characteristics listed below, tick the correct box to indicate whether it describes a **spur sprocket** or a **rim sprocket**.

Characteristic	Type of sprocket:	Spur	Rim
Permanently attached to the clutch drum		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Also called a 'floating' sprocket', because it slides onto a hub		<input type="checkbox"/>	<input checked="" type="checkbox"/>
More effective in discharging wood chips and bark		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Supports tie straps and cutters, reducing wear on the chain		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Part B: Crosscutting

1. Preparation and on-site safety

- a) When you're planning to do some work in the field, which of the following **preparations** should you make before you leave? Tick all correct boxes.
- Check the weather forecast
 - Take a mobile phone (or other communication device if the signal is poor)
 - Pack a first aid kit, stocked with suitable supplies
 - Pack all necessary support tools, plus extra fuel and oil for the chainsaw
 - Pack sufficient drinking water.
- b) Answer True or False to the following questions relating to working in bushland and cutting trees with defects.
- 1) Burnt out root systems can leave **underground hollows** behind, which may collapse when a vehicle drives over the top, or someone walks over it.

True False
 - 2) If a burnt out tree remains **standing** after a fire has passed through, it generally means it's structurally sound and is unlikely to collapse later.

True False
 - 3) It's important to always carefully check the **crown** of old or damaged trees before walking underneath them, especially when the branches are touching nearby trees.

True False
 - 4) Growth characteristics and defects in timber can sometimes cause wood fibres to **break** or **move** in unexpected ways, so extra care must be taken when cutting timber with splits, shakes, twists or other defects.

True False

2. Environmental protection

- a) Give two examples of items you use at work that are able to be **recycled** instead of being thrown away. They may include items put into the recycling bin at work or items that have to be taken to a designated waste/recycling centre.

spent oil, cardboard, glass, plastic bottles, steel products, batteries, etc.

- b) Give one example of an item you use at work that could be **reused** multiple times instead of being thrown away after a single use.

cleaning rags, pallets, containers, gluts under loads, etc

- c) When you're working in an area that contains **weeds or soil-borne pests and diseases** – commonly called a 'dirty area' – you need to take special care to avoid spreading the material to 'clean areas'. Below are some Do's and Don'ts that apply to working in dirty areas. Tick the appropriate box to make each statement correct.

Do: Don't: when working in a dirty area

- | | | |
|-------------------------------------|-------------------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Ensure that your shoes and clothes are free from soil and plant material before you get into your vehicle at the end of the job. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Drive through contaminated areas when they are wet or dewy, or when the weeds are seeding. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Start work in the 'clean' areas, or areas with the least amount of infestation, and work towards the 'dirty' areas. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Allow contaminated mud or plant material to be carried into clean areas on vehicle tyres, machinery or other equipment. |

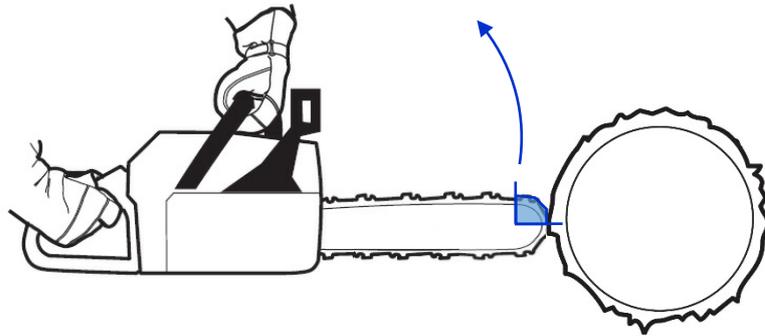
- d) Below are some Do's and Don'ts that apply to protecting the soil, local waterways and cultural heritage sites while you're carrying out chainsaw activities on-site. Tick the appropriate box to make each statement correct.

Do: Don't: when working in the field, including bushland

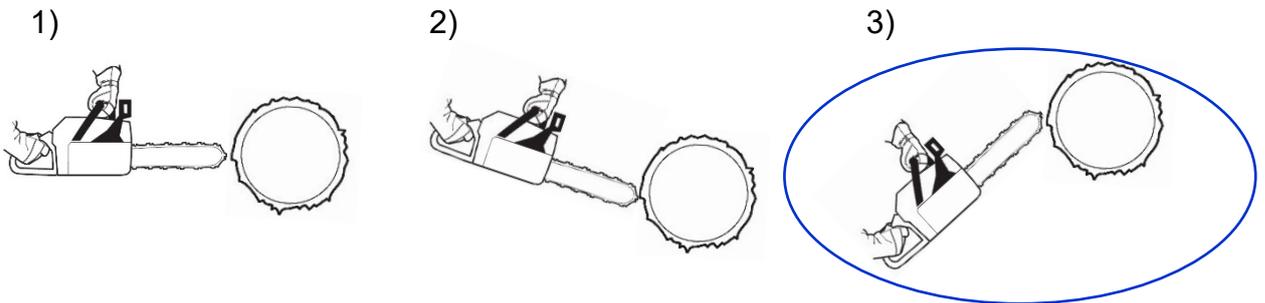
- | | | |
|-------------------------------------|-------------------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Use absorbent material (sawdust or other material from a spill kit) to soak up hazardous chemical spills. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Dispose of used cleaning fluid or fuel by tipping it on the ground, rather than taking it back to the depot. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Allow prunings or foliage to accumulate near a stormwater drain or local waterway where there is a risk it might blow in or be washed in by rainwater. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Notify your supervisor if you come across an area that looks like it could be a cultural heritage or Aboriginal site but isn't marked on your work documents. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Leave dead branches and hollow logs in place, where possible, to provide habitat for native animals and birds. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Ensure that permission has been granted by the proper authority (or land owner) before entering an area to carry out chainsaw work. |

3. Cutting techniques

- a) The chainsaw below is about to suffer **kickback**, because the nose of the guide bar is being pushed straight into the log.
- 1) Draw an arrow on the diagram to show which **direction** the nose will go in.
 - 2) Shade in the **kickback zone** on the guide bar



- b) Which of the chainsaws shown below is in the correct position to commence a **bore cut**? Circle the correct diagram.



- c) Below are four important actions that will help you to avoid **kickback** while you're making a **bore cut**. Circle the correct word or phrase for each action.

1) Make sure the saw has reached **FULL** speed before commencing the cut
HALF

2) Start the cut with the TOP nose quadrant
BOTTOM

3) Maintain a firm grip and stance, with the saw IN LINE WITH your body
OFFSET FROM

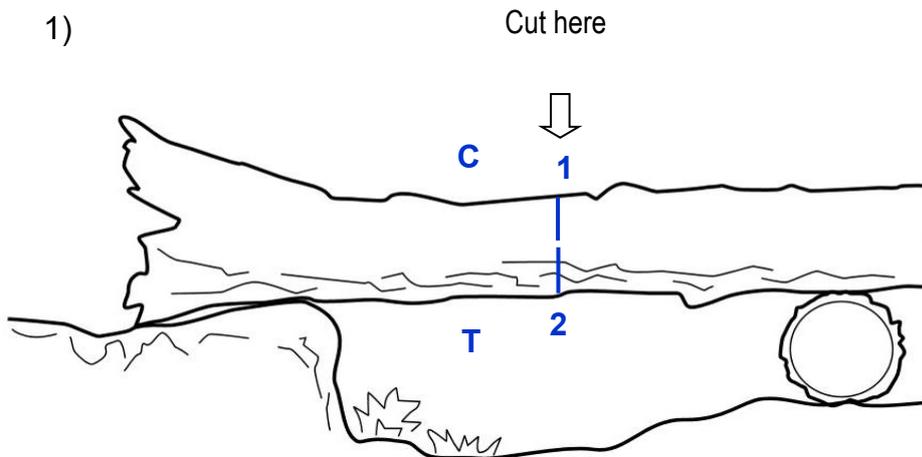
4) Do not straighten the saw until the nose is **BURIED IN** the timber
JUST TOUCHING

- d) The three logs shown below need to be cut through at the point marked with an arrow. You may use straight cuts, step cuts or angle cuts, but in each case you must use **two cuts** because of the large diameter of the logs.

For each log:

- mark which side is in **compression** and which side is in **tension** by writing 'C' and 'T' in the correct position
- indicate whether the log has a **top bind** or **bottom bind** by ticking the box
- draw where you would place the **first cut**, and mark it '1'
- draw where you would place the **release cut**, and mark it '2'.

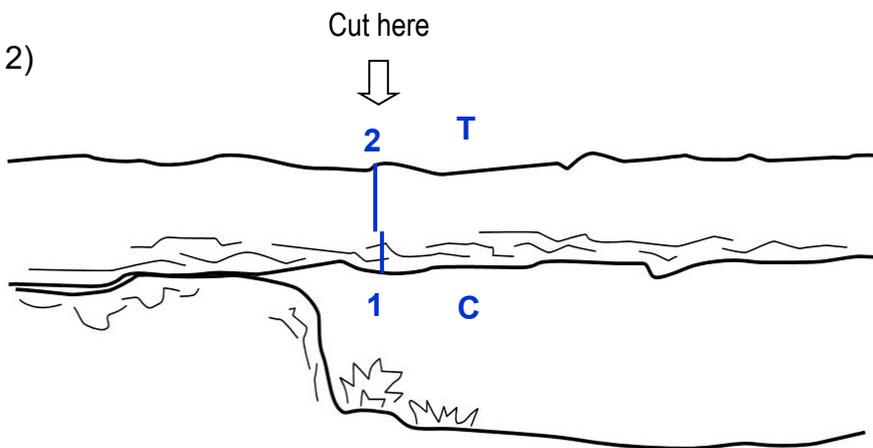
1)



This log has a:

- top bind
 bottom bind

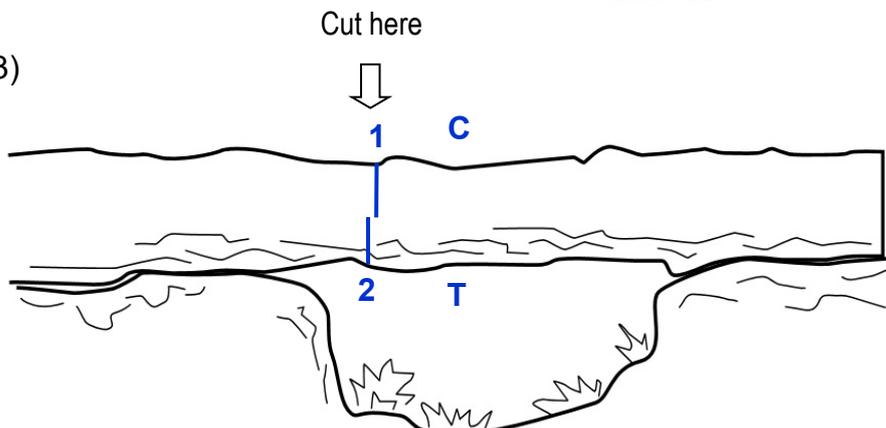
2)



This log has a:

- top bind
 bottom bind

3)



This log has a:

- top bind
 bottom bind

Part C: Basic tree felling

1. Tree defects and site hazards

Below are some examples of **growth characteristics** and **defects** in trees that may cause safety problems for the tree faller. For each example shown, indicate why this feature is a problem. Also indicate which **skill level** of tree felling you think the tree should be classified in, based on the photo and description.

a)



Issue: The tree is growing on steep rocky ground, and some of the roots are exposed and lifting up the rocks.

Problem for the tree faller:

The root system is unstable, and may also have problems such as root rot. The ground is sloping, making the conditions difficult.

Skill level:

Basic Intermediate Advanced

b)



Issue: There is a large crack in the tree trunk, extending into the heartwood, with dead wood on the outside.

Problem for the tree faller:

The tree is likely to be structurally unsound. The crack could open up while the tree is being felled and cause the stem to 'slab'.

Skill level:

Basic Intermediate Advanced

c)



Issue: The tree is dead, with hollows, decay, cracks and other defects.

Problem for the tree faller:

The tree is structurally unsound. It could behave in unpredictable ways.

Skill level:

Basic Intermediate Advanced

d)



Issue: This tree (centre of photo) has a heavy forward lean, and there are various obstacles in its path of natural fall.

Problem for the tree faller:

The tree has tension and compression stresses that require modified felling techniques (such as the strap technique).

Skill level:

Basic Intermediate Advanced

e)



Issue: At the base of the tree is a triangular-shaped butt scar, which opens into a hollow inside the trunk.

Problem for the tree faller:

The tree has a hollow butt, which may extend up the trunk. It could require modified felling techniques (e.g. thicker hinge).

Skill level:

Basic Intermediate Advanced

f)



Issue: There are several conks (fungal fruiting bodies) growing around the base of the stem.

Problem for the tree faller:

The tree is structurally unsound. It could behave in unpredictable ways. It will require modified felling techniques.

Skill level:

Basic Intermediate Advanced

g)



Issue: There is a termite track running up the outside of this tree, which is otherwise in sound condition.

Problem for the tree faller:

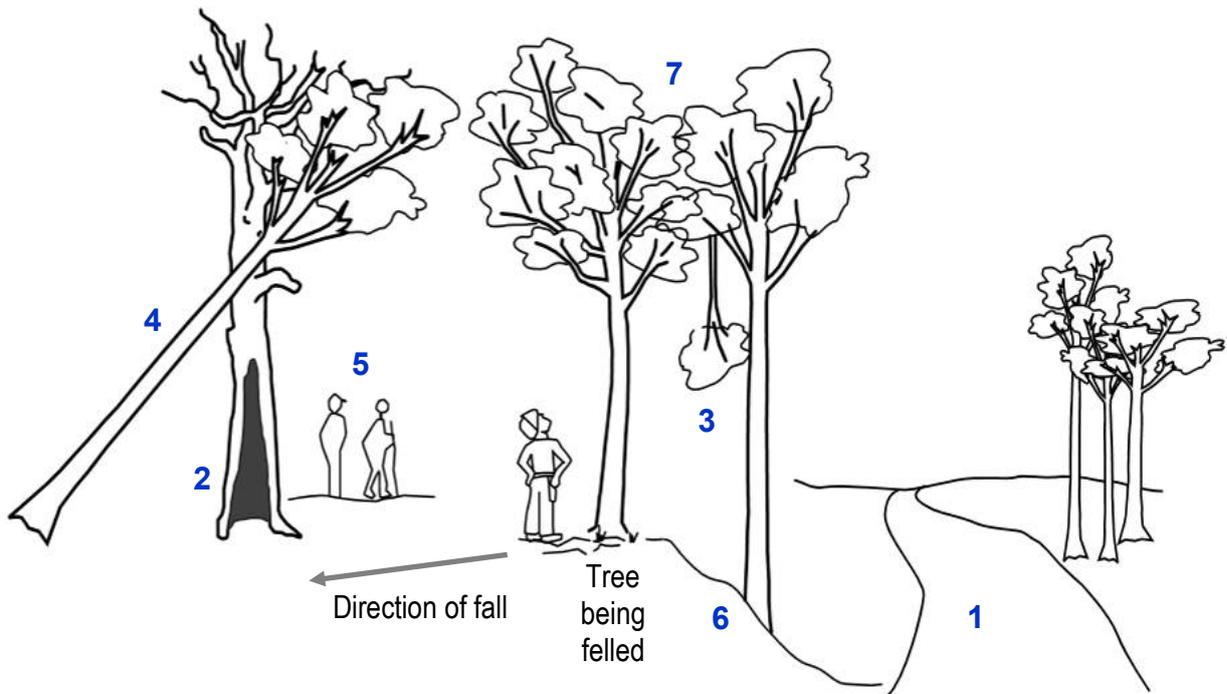
It looks like arboreal termites, which build nests in the branches (as opposed to inside or under the tree). Check branches for stability.

Skill level:

Basic Intermediate Advanced

h) There are 7 **hazards** around the tree feller in the diagram below, as listed in the table underneath.

Find each of the hazards in the diagram and write the corresponding **number** beside that item in the drawing. Then briefly explain what the **risks** are and what **control measures** you would put in place to manage the risks.

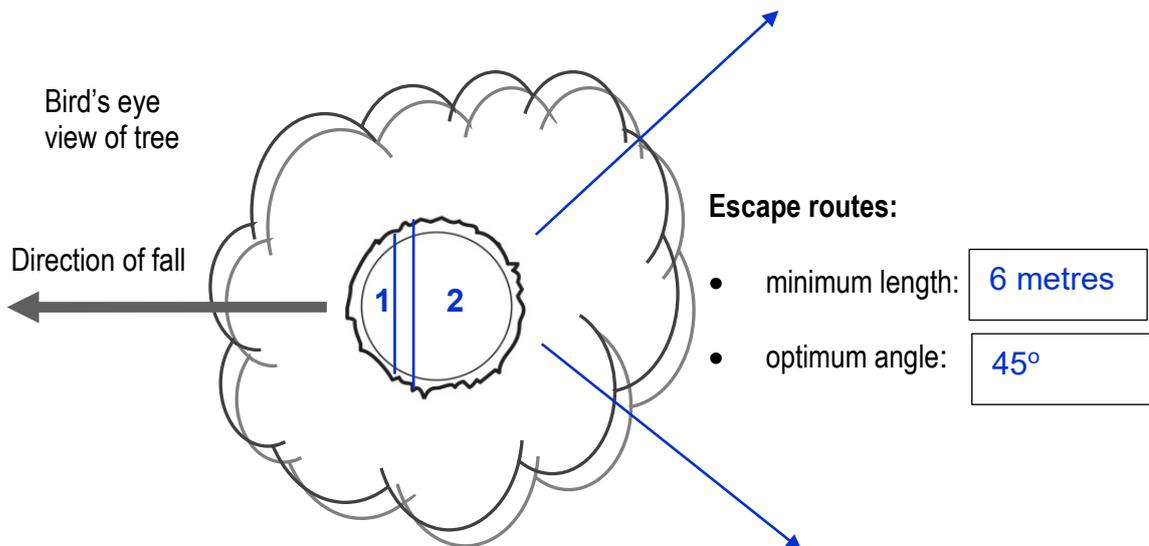


No.	Hazard	Risks posed	Suggested control measures
1	Nearby roadway	Possibility of debris falling on the road, drivers not seeing workers	Set up appropriate traffic control measures
2	Dead tree in direction of fall	Tree being felled may hit the dead tree and bring it down	Clear the hangup and fell the dead tree first
3	Widow maker	Could fall at any time while the tree feller is working	Bring down widow maker
4	Hang-up	Could be destabilised by falling tree, especially if the tree hits it	Clear the hangup and fell the dead tree first
5	People in the area	Could wander into the exclusion zone or danger area	Set up exclusion zone, barriers/signage and spotter
6	Steep bank	Very close to the work zone and possible escape routes	Carefully plan escape route, consider using an EWP
7	Interlocking branches with nearby tree	May get caught up and either change the direction of fall or cause branches to snap off	Use climber or EWP to trim interlocked branches first

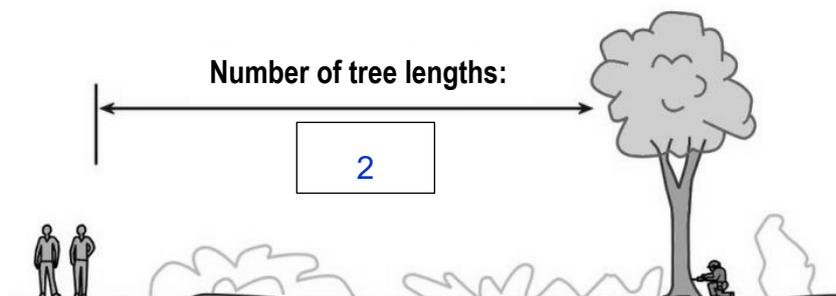
2. Standard scarf and back cut

a) The diagram below shows a typical ‘basic level’ tree viewed from above, and the direction you are going to fall it in.

- 1) Draw the angle and direction of the two **escape routes** you should prepare, using arrows.
- 2) Fill in the boxes with the following information:
 - minimum **length** of the escape routes (in metres)
 - optimum **angle** of the escape routes (in degrees) – in relation to a line extending directly backwards from the tree, away from the direction of fall.
- 3) Draw the **scarf cut** on the tree stump, showing its depth and the direction it should be facing. Write ‘1’ inside the scarf cut.
- 4) Draw the **back cut**, showing its depth and the space that should be left for the hinge wood. Write ‘2’ inside the back cut.



b) What is the minimum **safe distance** between the tree being felled and other personnel or machines in the area? Write your answer in the box below, expressed in terms of the number of tree lengths.



- c) The **side-on view** of the tree trunk below represents the same tree as in the previous questions, with the scarf already cut.

Let's assume that the tree is a common hardwood species without any significant defects or unusual characteristics.

- 1) **Draw the back cut**, paying particular attention to its position in relation to the scarf, both in terms of its height and the amount of hinge wood left behind.
- 2) Write the following details in the corresponding boxes:
 - **angle between the scarf's top and bottom cuts**, ranging from the minimum to the maximum angle (under normal falling conditions) – expressed in degrees
 - **depth of the scarf cut**, ranging from the minimum to the maximum depth (under normal falling conditions) – expressed as a proportion (either fraction or percentage) of the trunk's diameter at the point of cut
 - **height of the back cut** above the scarf line (where the top and bottom scarf cuts meet) – expressed as a proportion (fraction or percentage) of the trunk's diameter and also in millimetres (for a 500 mm diameter tree)
 - **width of the hinge wood** – expressed as a proportion of the trunk's diameter and also in millimetres (for a 500 mm diameter tree).

Diameter of the tree at point of cut: **500 mm**

Angle of scarf cut (degrees):

- minimum:
- maximum:

Hinge wood width:

- as a proportion of the diameter:
- in mm (for 500 mm dia. stem):

Back cut height above scarf line:

- as a proportion of the diameter:
- in mm (for 500 mm dia. stem):

Depth of scarf – as a proportion of the diameter:

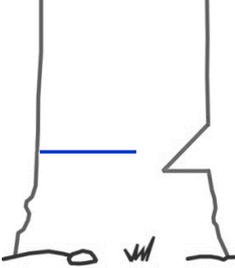
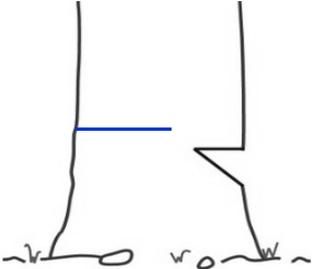
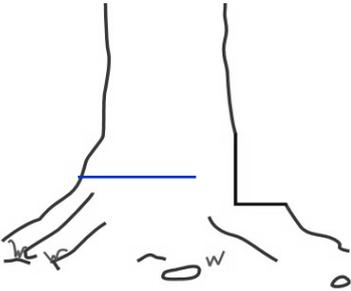
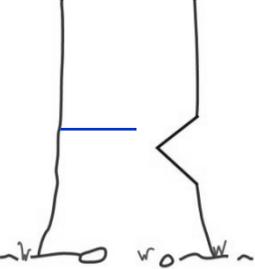
- minimum:
- maximum:

Part D: Intermediate tree felling

1. Different types of scarfs

a) The diagrams below show the side-on view of four different types of **scarf cuts**.
For each diagram:

- **draw the back cut** in its correct position (on the diagram)
- name the type of **scarf**
- briefly describe the **situations** where you would use this type of scarf.

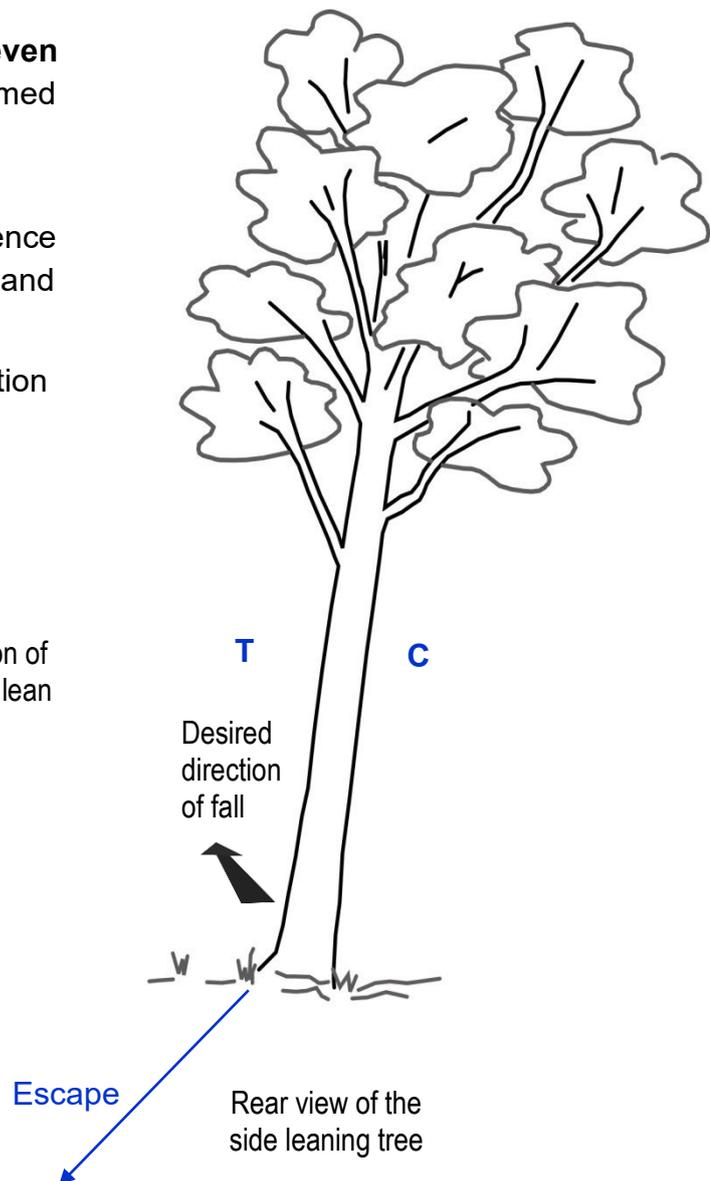
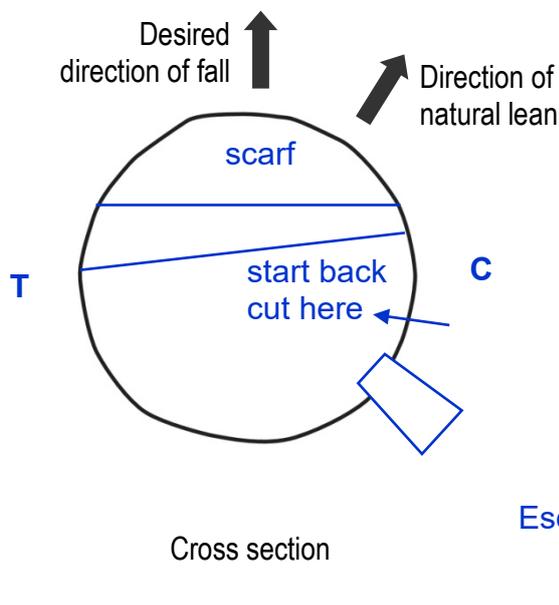
	Name	Where you would use it
1) 	Standard scarf	Used under most circumstances.
2) 	Humboldt scarf (also called reverse scarf)	Used for cutting saw logs, because it achieves slightly more recovery (length). Also used to fall trees uphill, to stop the tree from slipping back over the stump.
3) 	90 degree scarf	Used on trees with a very large butt swell
4) 	V scarf	Used on large trees, particularly when the trunk is more than twice the length of the bar

2. Leaning tree – pulled away from its natural lean

The two diagrams below show a tree viewed from the rear and in cross section. The tree's diameter is less than the length of your guide bar and the trunk is solid and free from any serious defects.

You need to pull the tree away from its natural lean using **uneven hinge wood** and a **wedge**. You may also use a **double back cut** if you wish.

- a) On both diagrams:
- mark the **compression** side of the tree with a 'C'
 - mark the **tension** side of the tree with a 'T'
 - mark your **escape route** with an arrow and the word 'Escape'.
- b) On the cross section only:
- draw the **scarf line** and write 'scarf' inside the cut
 - draw a line to show the **uneven hinge wood** that will be formed when you finish the double backcut
 - mark where you will commence the **back cut** with an arrow and write: 'Start back cut here'
 - draw the **wedge** in the position where you will drive it in.



3. Double leader – felled as a single tree

The tree shown below is a double leader, with the fork starting at **2.1 metres** (7 feet) above ground. You are going to fall it as a single tree. Its structure is generally sound.

- a) Draw the **scarf** in position on the trunk, at the correct height and facing the direction you plan to fall the tree in.
- b) Answer the following questions:

- 1) What **angle** have you placed the scarf at, in relation to the fork?

90° (i.e. at right angles to the fork)

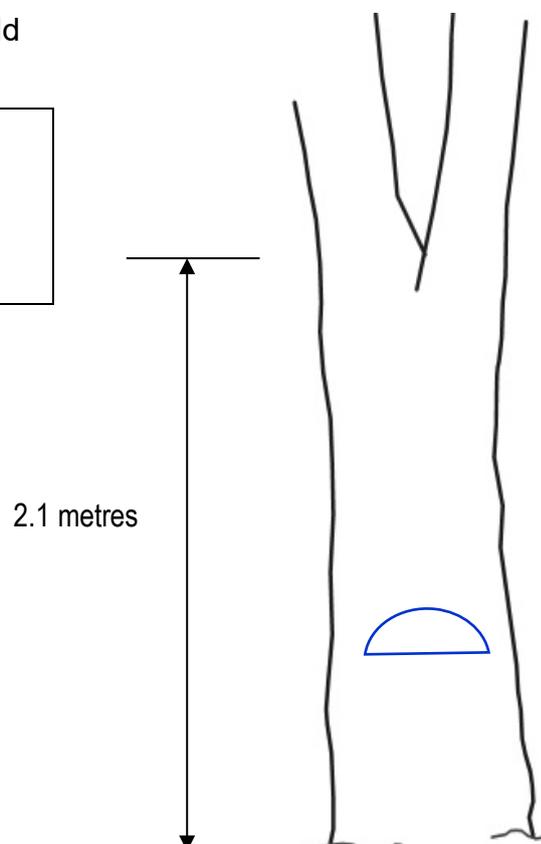
- 2) What is the main problem with falling a double leader? That is, where is its main point of **weakness**, and what might happen if it **fails** at that point while you're placing the cuts?

Main point of weakness: *Between the two stems (generally due to 'included bark' trapped between the stems, pushing the union apart)*

What might happen if it fails at that point: *The stems might split apart and fall in different directions.*

- 3) If the fork was less than **shoulder height**, what other technique could you use to fall the tree?

Fall the two stems separately, starting with the most hazardous one.



Part E: Advanced tree felling

1. Side leaning tree – felled at 90° to its natural lean

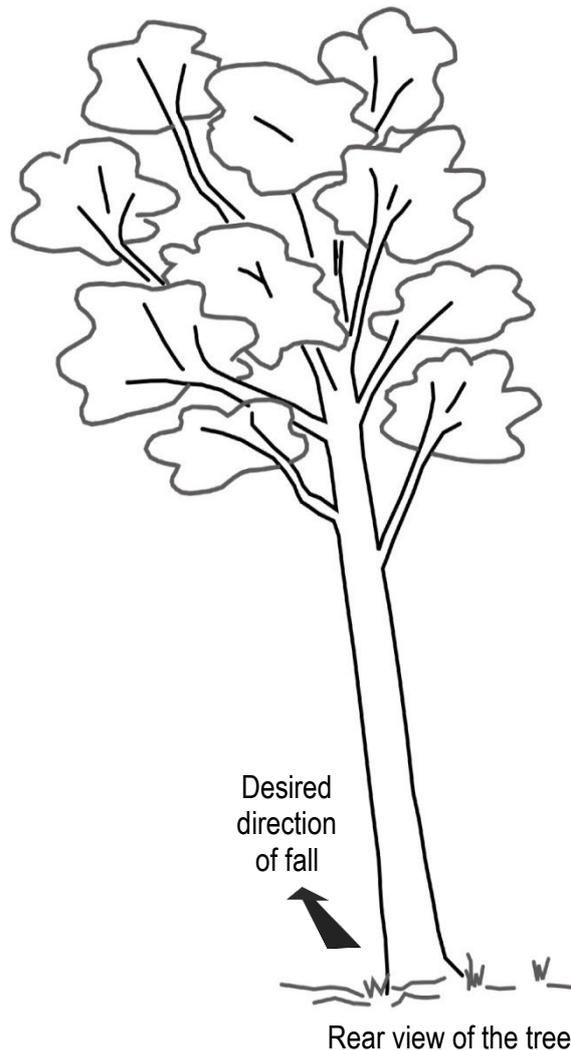
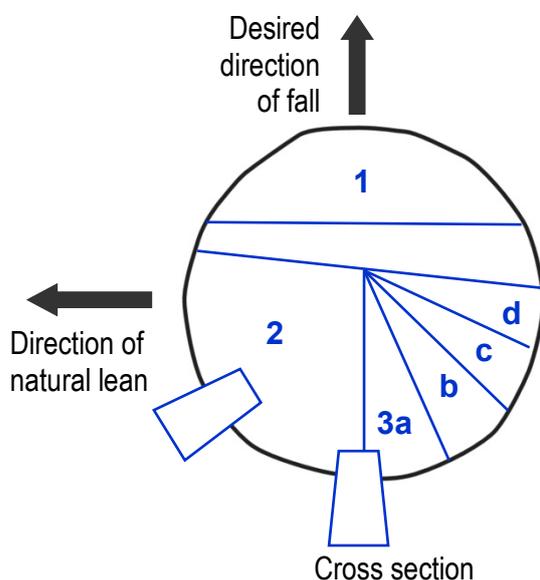
The cross section and side-on views below show a **side leaning** tree. The tree's diameter is more than the length of your bar and the stem is structurally sound.

You need to fall the tree **90° away** from its direction of natural lean, and will use **uneven hinge wood**, **two wedges** and a **double back cut**.

a) On the **cross section**, mark:

- the **scarf cut**, by drawing the scarf line and writing '1' inside the cut
- the **hinge wood** you should leave to pull the tree in the desired direction, after completing the back cuts (you may shade the hinge wood if you wish)
- where the first **back cut** should go – draw its boundary and write '2' inside it
- where the **second back cut** should go – showing each stage of the cut (if you're cutting it in segments) and labelling them: '3a', 'b', 'c' ... etc.
- where the **two wedges** should go to help the tree fall in the desired direction.

Note that the side-on view (at right) is for general reference only. All your markings should be drawn on the cross section (below).



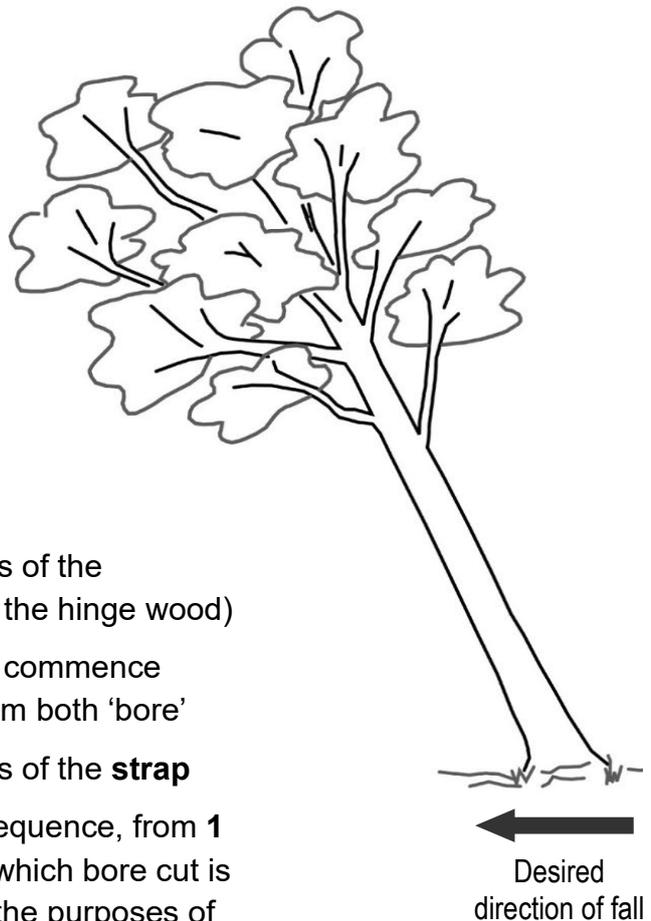
2. Heavy forward leaner

The tree shown below is a **heavy forward leaner**. Underneath is a cross section and close-up side-on view of the trunk.

You are to show the sequence and positioning of the cuts required to fall the tree using the **strap technique**. Note that the tree's diameter is almost **twice the length** of your guide bar, so you will need to use bore cuts from both sides.

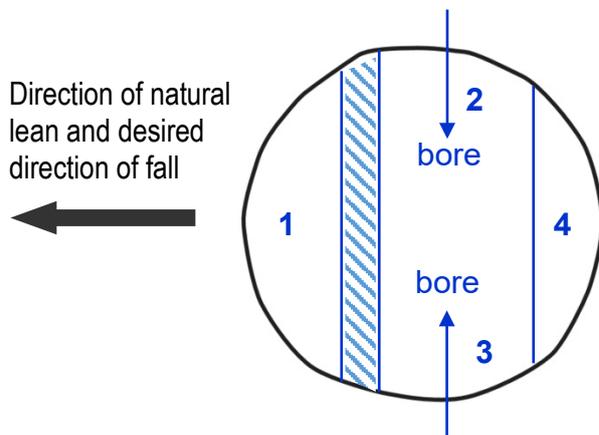
a) On the close-up side-on view:

- draw the **scarf cuts**, taking care to show the correct depth and angle
- draw the **bore cut** that will be visible on the near side
- draw the **release cut** (i.e. the back cut to release the strap).

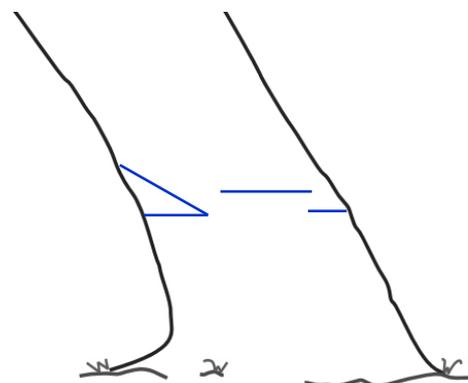


b) On the cross section:

- draw the **scarf line**.
- draw a line to show the thickness of the **hinge wood** (and then shade in the hinge wood)
- mark with arrows where you will commence the two **bore cuts**, and label them both 'bore'
- draw a line to show the thickness of the **strap**
- number the cuts in the correct sequence, from **1** to **4** (note that you may choose which bore cut is done first – it doesn't matter for the purposes of this exercise).



Cross section



Close-up side-on view

3. Dead tree

The tree at right is **dead**. You have determined that the trunk is solid (i.e. it does not have a significant hollow).

- a) Draw the **scarf** and **back** cuts, paying attention to their depths and positions.
- b) Answer the following questions:
 - 1) How deep should the **scarf** be, relative to the diameter of the trunk?

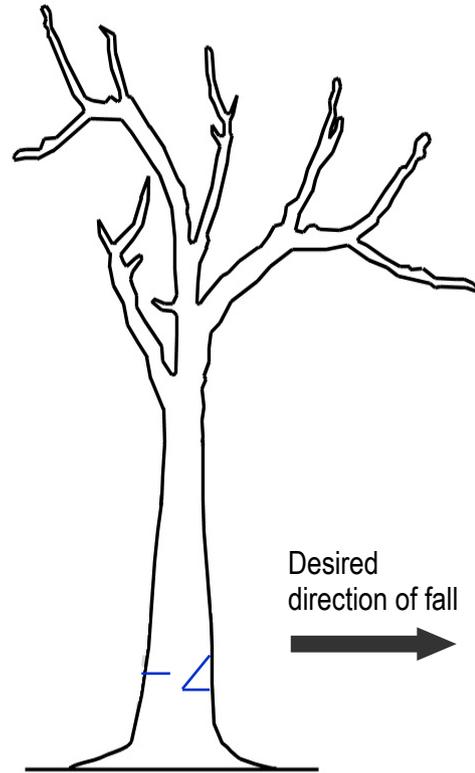
Up to half the depth

- 2) How high should the **back cut** be, in comparison to a standard scarf?

Slightly lower than normal

- 3) Now let's say there is an extensive **pipe** inside the trunk. Should the **hinge** be thicker, thinner or normal, compared to a standard scarf in a solid trunk?

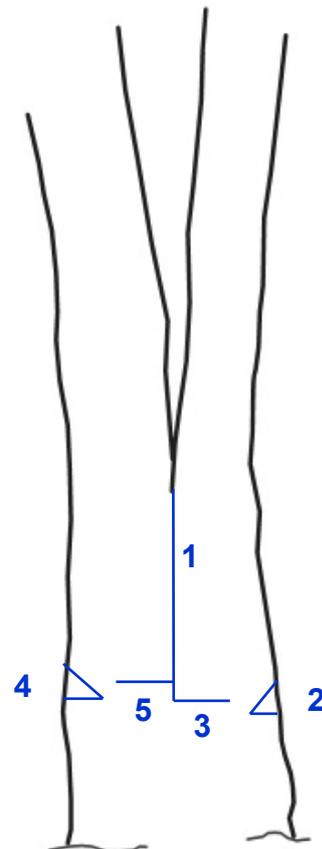
Thicker



4. Double leader – felled as two trees

This tree is a double leader, with the fork at shoulder height. You have decided to fall each leader **separately**.

- a) Draw the following cuts:
 - **ripping cut**, from the fork down to where you will put in the first release cut – mark it '1'
 - **scarf cut** on the leader that you plan to fall first – mark it '2'
 - **bore cut** that you will use as the release cut for the leader – mark it '3'.
 - second **scarf cut** – mark it '4'
 - second **release cut** – mark it '5'.



5. Burnt out tree

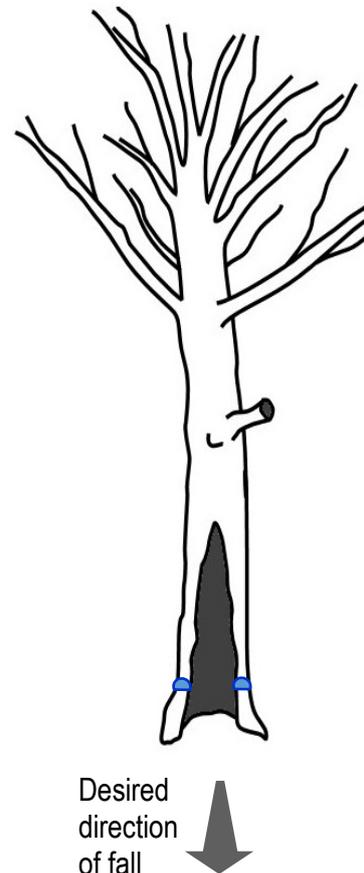
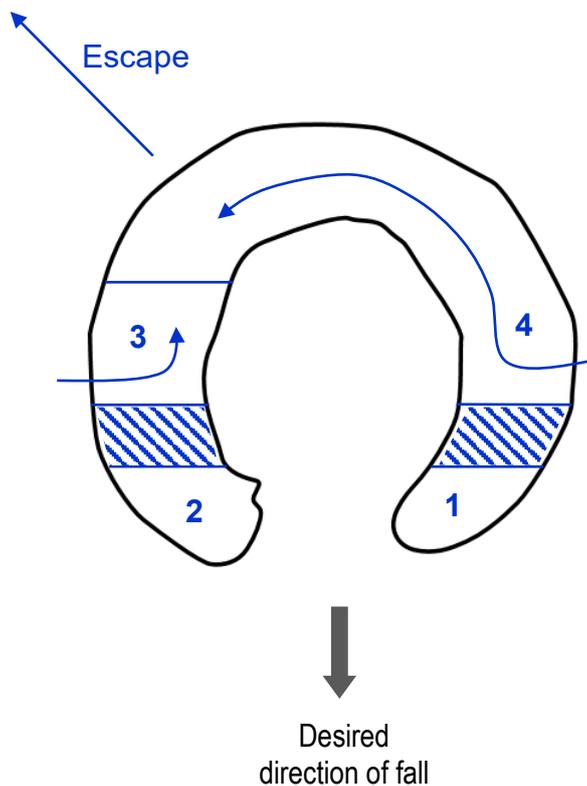
The cross section and front-on views below show a **burnt out** tree. The tree's overall diameter is **twice the length** of your guide bar. You are to show the sequence and positioning of the cuts required to fall this tree.

a) On the front-on view (full tree):

- draw the two **scarfs** and shade them in.

b) On the cross section:

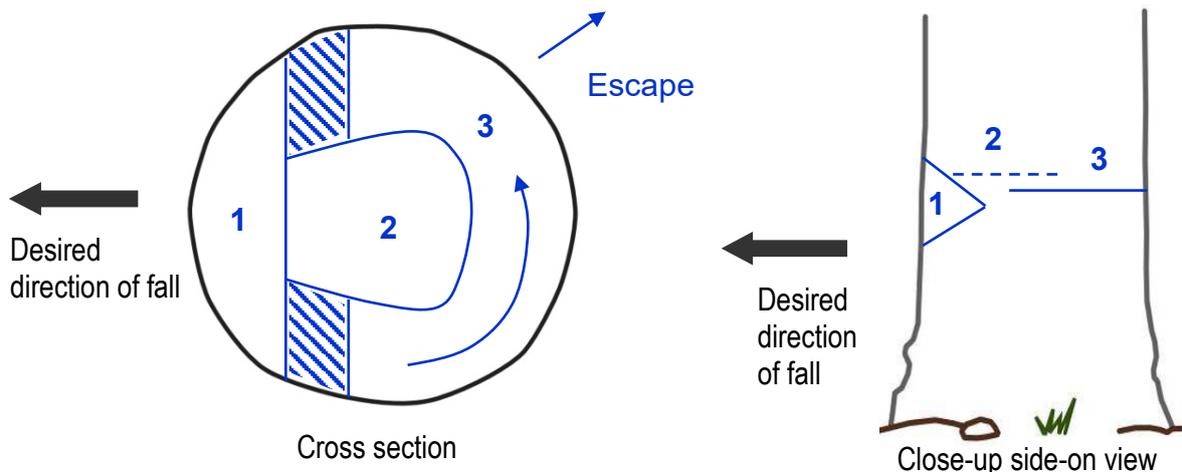
- mark your **escape route** with an arrow and label it 'escape' (bear in mind that this will determine the order of your bore cuts – i.e. the side you will finish your cuts on)
- draw the two separate **scarf lines**
- draw a line to show the thickness of the **hinge wood** behind each scarf, and shade in the hinge wood areas
- draw a line to show the back of the **first bore cut** (behind the hinge) and use an arrow to indicate where you will commence the cut
- indicate with an arrow where you will commence **second bore cut**, and show the **direction** you will go in to complete this cut around the back of the tree.
- number the cuts in the correct sequence, from **1 to 4** (using two numbers for the scarf cuts)



6. V scarf in a large solid tree

The tree trunk shown below (in cross section and side-on view) has a diameter of **more than twice** the length of the guide bar. The trunk is solid, so you have decided to use a **V scarf and centre bore** to fall it.

- a) On the side-on view:
 - draw the **V scarf** and mark it '1'
 - draw the **centre bore**, using a dotted line, and mark it '2'.
 - draw the **back cut** and mark it '3'
- b) On the cross section:
 - draw all of the cuts listed above – **scarf**, **centre bore** and **back cut** – and mark them '1', '2' and '3'
 - shade in the areas left as **hinge wood**
 - use an **arrow** to show the **direction** you will follow around the **back cut**, bearing in mind the position you will want to be in when you finish and escape.
 - mark your **escape route** with an arrow and label it 'escape'

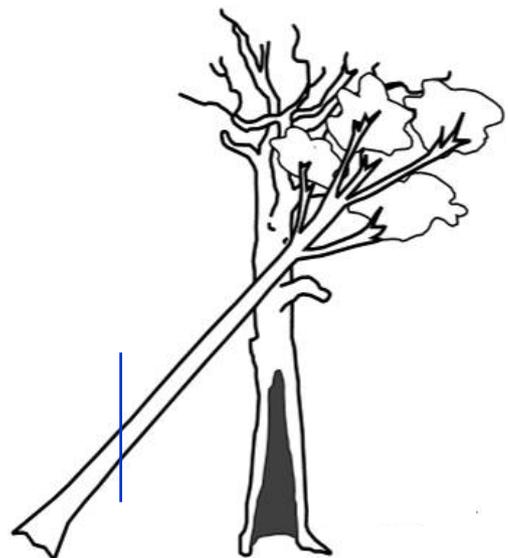


7. Hang-up

The drawing at right shows a tree that has become **hung-up** in another tree instead of falling cleanly to the ground.

- a) Draw a line on the trunk to indicate the **angle** you would place the upcut and downcut at, if you decided to clear it with a chainsaw.
- b) If the hang-up is **too dangerous** for a chainsaw, what else could you do to clear it?

Use a machine to push it over



Section 3: On-site documents

1. Chainsaw operation pre-start checklist

Note to candidate: Your assessor will ask you to fill in the pre-start checklist below while you are inspecting your chainsaw, during one of the practical demonstration events.

Tick the corresponding boxes in the 'OK' column for all items that are in good order and condition. Add any additional items that need to be checked in the extra spaces provided.

If any action needs to be taken before an item can be ticked as 'OK', write down the action you have taken in the right-hand column. If you are unable to remedy the issue, report the problem to your assessor and write down the outcome in the right-hand column.

Check:	OK	Action taken if not OK
Chainsaw (make, model, size, etc)		
Cutters are sharp and in good condition	<input type="checkbox"/>	
Depth gauges and drive links are in good condition	<input type="checkbox"/>	
Drive sprocket and clutch are in good condition	<input type="checkbox"/>	
Chain catcher and mountings are in good condition	<input type="checkbox"/>	
Air filter is clean and top cover bolts are tight	<input type="checkbox"/>	
Spark plug, lead and connection are in sound condition	<input type="checkbox"/>	
Powerhead and grill on fan housing are clean	<input type="checkbox"/>	
Chain brake mechanism is clean and in good condition	<input type="checkbox"/>	
Throttle and stop controls are working normally	<input type="checkbox"/>	
Guide bar is clean and in good condition	<input type="checkbox"/>	
Chain is correctly tensioned and moving freely	<input type="checkbox"/>	
Side cover bolts are retightened	<input type="checkbox"/>	
Fuel tank is topped up	<input type="checkbox"/>	
Oil reservoir is topped up	<input type="checkbox"/>	

2. On-site safety and environmental risk assessment

Note to candidate: Your assessor will ask you to complete this risk assessment at the worksite where you're undertaking one of the practical demonstration events.

For each of the hazards listed, put a tick in the box if it applies to the site and write down the control measures that have been (or will be) put in place to minimise the risks. If the hazard does not apply, write N/A in the 'Control measures' column. Add any other hazards in the relevant categories, if they're not already listed.

Hazards	Control measures
<p>Weather:</p> <p><input type="checkbox"/> Incidents due to wind, rain or storms</p> <p><input type="checkbox"/> Heat stroke or sunburn</p> <p><input type="checkbox"/> Other:</p>	<p>Check forecast before commencing work; monitor while working; stop work if weather deteriorates</p> <p>Cover skin; wear sunscreen; carry water</p>
<p>Uneven, hilly or sloping site:</p> <p><input type="checkbox"/> Vehicles driving over drop-offs or gullies</p> <p><input type="checkbox"/> Twisted ankles, or other trip or fall injuries</p> <p><input type="checkbox"/> Other:</p>	<p>Place warning signs or cones near drop-offs</p> <p>Remove trip hazards from the work area</p>
<p>Visibility problems in the work zone:</p> <p><input type="checkbox"/> Vehicle incidents due to darkness</p> <p><input type="checkbox"/> Workers unable to monitor the movement of others walking through the work zone</p> <p><input type="checkbox"/> Other:</p>	<p>All workers to wear hi-vis clothing</p> <p>Workers to watch out for others, and use verbal or visual signals before entering work areas</p> <p>Use to-way radios</p>
<p>Vehicles and pedestrians outside work zone:</p> <p><input type="checkbox"/> Unauthorised people entering work zone</p> <p><input type="checkbox"/> Passing vehicle traffic driving too close</p> <p><input type="checkbox"/> Other:</p>	<p>Set up exclusion zone with cones and signs; have a spotter on the ground</p> <p>Put traffic controllers on duty</p>
<p>Communication:</p> <p><input type="checkbox"/> Inability to contact emergency services</p> <p><input type="checkbox"/> Out of range of mobile phone service</p> <p><input type="checkbox"/> Difficulty in communicating with other members of the work crew</p> <p><input type="checkbox"/> Other:</p>	<p>Carry mobile phones and ensure that the network provider has good service in that area</p> <p>Identify a nearby landline service, or carry a satellite phone or beacon</p> <p>Use two-way radios</p>

<p>Surrounding overhead hazards:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Branches dropping from nearby trees <input type="checkbox"/> Electrocutation from overhead powerlines <input type="checkbox"/> Other: 	<p>Inspect surrounding trees for hazardous limbs</p> <p>Wear hard hats in work zone</p> <p>Maintain safe clearances from powerlines at all times</p>
<p>Ground level hazards:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Damage to pipes, manhole covers, services <input type="checkbox"/> Pollution to nearby creeks or stormwater from refuse and tree trimmings <input type="checkbox"/> Damage to fences or other low structures <input type="checkbox"/> Damage to buildings or road accessways <input type="checkbox"/> Other: 	<p>Mark services, roads and accessways with cones or barriers and stay clear</p> <p>Keep trimming refuse away from stormwater drains and waterways</p> <p>Keep felling zone away from all structures</p>
<p>Trees requiring work:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Injuries to workers from tree hazards <input type="checkbox"/> Endangered animal species living in tree <input type="checkbox"/> Removing or working on the wrong tree <input type="checkbox"/> Other: 	<p>Notify client and council if endangered species are found</p> <p>Positively identify tree before commencing work</p> <p>Inspect tree carefully before commencing work</p>
<p>Chainsaw and user:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Injuries to operator from flying particles, noise, lacerations <input type="checkbox"/> Injuries due to equipment defects or wear <input type="checkbox"/> Injuries due to user fatigue or health issues <input type="checkbox"/> Other: 	<p>Ensure operator is correctly trained, in good health, not fatigued, not under influence of drugs or alcohol, etc.</p> <p>Wear appropriate PPE for job</p> <p>Inspect equipment before/after use; tag out faulty equipment; service and maintain regularly</p>
<p>Emergency situations:</p> <ul style="list-style-type: none"> <input type="checkbox"/> On-site injuries requiring immediate treatment <input type="checkbox"/> Evacuation required due to fire or incident <input type="checkbox"/> Ambulance/emergency services required <input type="checkbox"/> Other: 	<p>Keep a first aid kit on hand. Only carry out work when there is qualified first aider in attendance.</p> <p>Indicate evacuation assembly area. Ensure that phone reception or other com. method is in place.</p>

<p>Risks have been controlled and it is safe to proceed with the activity</p>	<p>Yes <input type="checkbox"/> No * <input type="checkbox"/></p>
<p>* If the level of risk is unacceptable, state the action you have taken</p>	

3. Tree faller’s visual tree assessment

Note to candidate: This task applies to one of the tree falling practical demonstrations you will undertake as part of your assessment activities. Your trainer will ask you to complete the visual tree assessment checklist below for one tree – taking into account all factors that might affect the falling operation and techniques to be used.

For each defect, growth characteristic or site issue listed (or identified and added to the list):

- put a tick in the corresponding box in the ‘Safe to proceed’ column if it has been controlled
- put a cross in the box if it is not safe to proceed, and provide further information in ‘Comments’
- write N/A if that item does not apply to the tree or site you are assessing.

Location address	
Tree species	

Defects, growth characteristics and site issues relating to the tree	Safe to proceed:
Weight distribution in the crown, and general shape of crown	
Direction of natural lean, and the degree of lean	
Climbing vines, entanglements in the crown with other trees, etc	
Hanging branches, dead wood in the crown, nearby hang-ups	
Ground slope, obstacles in the path of fall or escape route	
Bark inclusions between co-dominant stems or tightly-angled branches	
Large splits or cracks, especially if extending into the heartwood	
Dead or burnt out trunk, hollow trunk with large cavity	
Termite pipe (or termite damage), borer attack or other insect attack	
Fungi, conks or other evidence of internal fungal decay	
Hazardous insects or animals, such as bees, wasps, birds, etc	
Exposed, unstable or damaged root system	
Assessment	All risks have been taken into account and tree is safe to fell: <input type="checkbox"/> Yes <input type="checkbox"/> No *
* Comments (if ‘No’ has been ticked)	

Section 4: Practical demonstrations

This section is to be completed by the assessor.

The practical demonstration checklists on the following pages are set out in the same order as the knowledge tests in Section 1 – starting with ‘Maintain chainsaws’ and finishing with ‘Advanced tree felling’. Candidates should be assessed in all units that build up to the level of accreditation they are seeking. This will enable them to demonstrate ‘current competency’ in the lower level units, even if they already hold statements of attainment in those units.

Note that most employers and government agencies require chainsaw operators to be periodically re-assessed and re-accredited in chainsaw operation, typically every three to five years – so the normal ‘recognition of prior learning’ (RPL) process does not apply.

For candidates who are undertaking higher level competencies, you may integrate the assessment of lower level units into the activities they are performing while they carry out their tree felling demonstrations. This ensures that their refresher training is kept up-to-date in all relevant units.

Prerequisites

There are no prerequisites specified in the FWP Training Package for any of the chainsaw units covered in this integrated assessment tool. However, the sequential layout of the units in this assessment tool, and the requirements for re-confirmation of ‘current competency’ in all relevant skills, means that each lower-level unit should be treated as a prerequisite and signed off as part of the assessment process.

Checklists

Each competency has the following checklists:

- **Specific performance evidence** – detailing the central demonstration requirements specified in the ‘Performance evidence’ section of the ‘Assessment requirements’ for that unit
- **General performance evidence** – summarising the remaining ‘Performance evidence’ requirements, plus any additional requirements from the ‘Elements and Performance criteria’.

As you watch the candidate perform each of the criteria listed in the relevant competencies, tick the corresponding box to confirm that it has been met. If a particular item has not been performed satisfactorily, put a cross in the box and make a note of the problems or issues in the ‘Comments’ box at the end of the checklist. You may also ask the candidate verbal questions to check their underpinning knowledge in the skills they are demonstrating.

Complete the following summary table for the demonstration activities.

Date/s of practical demonstrations	
Location used for demonstrations	
Description of chainsaw used	
Type of bushland or forest	
Other information (e.g. tree species, where relevant)	

Tree characteristics at each level

Below are summaries of the tree characteristics and environmental conditions that apply to the three different levels of tree felling – basic, intermediate and advanced. These descriptions are based on the information presented in the 'Application' section of the relevant competencies.

'Basic' level trees:

- no excessive lean, and relatively easy to assess in terms of lean and weight distribution in the crown
- no visible damage or defects
- uniform in structure, and not prone to free splitting or adverse reactions
- single stem or multi-stems that are not complex
- small or medium diameter – not more than the chainsaw bar length – that can be safely felled using basic techniques
- site characteristics that do not add complexity to the operation.

'Intermediate' level trees:

- forward lean, backward lean or side lean that can readily be controlled by using wedges and/or larger hinge wood
- limited visible damage or defects
- multi-stemmed trees
- dead trees with minimal visible defects that are not complex to fell
- small or medium diameter that can be safely felled using intermediate techniques
- site characteristics that may add complexity to the operation, such as the position of the operator or direction of fall.

'Advanced' level trees:

- trees of any size, species and condition, as long as they are deemed safe to fell with a chainsaw
- lean or weight distribution that add significant complexity to the operation, including heavy forward leaners
- natural lean in a direction away from the desired direction of fall
- visible lightning damage, burnt out trees, fire damaged butts
- hung up trees
- complex multi-stems, hollow butts, culls and stags
- species prone to free splitting and adverse reactions during felling
- terrain, slope and environment that may add significant complexity to the operation.

FWPCOT2254: Maintain chainsaws

Specific performance evidence – the candidate has demonstrated their ability to:	Confirmed
1. Sharpen two chains	<input type="checkbox"/>
2. Carry out routine (and frequently required) maintenance according to the chainsaw manufacturer's recommendations	<input type="checkbox"/>
3. Carry out periodic maintenance according to the chainsaw manufacturer's recommendations	<input type="checkbox"/>

General performance evidence – the candidate has demonstrated their ability to:	Confirmed
1. Determine the maintenance requirements, in accordance with manufacturer's recommendations and company procedures, and ask for clarification where needed	<input type="checkbox"/>
2. Follow safe work practices and environmental care procedures at all times, and coordinate activities with other members of the work team	<input type="checkbox"/>
3. Select appropriate tools, and wear correct PPE for the task being carried out	<input type="checkbox"/>
4. Complete routine and periodic services, as per manufacturer's instructions	<input type="checkbox"/>
5. Inspect parts for damage and excessive wear, and replace when required	<input type="checkbox"/>
6. Clean down components, reassemble the saw and test for normal operation	<input type="checkbox"/>
7. Sharpen chain, using correct angles and depth gauge settings	<input type="checkbox"/>
8. Tag out defective equipment and remove from service	<input type="checkbox"/>
9. Report faults to authorised person for follow-up action, where required	<input type="checkbox"/>
10. Clean the work area and dispose of waste products as per workplace procedures	<input type="checkbox"/>
11. Write up maintenance records in accordance with procedures	<input type="checkbox"/>

Assessor's comments

If the candidate is exiting at this point, leave the remaining parts of this section blank and complete the 'Assessment summary' on the cover page.

Your judgement of competency should include the candidate's performance in the Knowledge test (Section 2, Part A) and take into account their background experience and previous accreditations (itemised in Section 1).

FWPCOT2273: Trim and cut felled trees

Specific performance evidence – the candidate has demonstrated their ability to:	Confirmed
1. Assess, plan and trim one felled tree using industry-approved techniques	<input type="checkbox"/>
2. Demonstrate all of the following types of cuts (tick the boxes below to confirm): <input type="checkbox"/> bridging <input type="checkbox"/> swinging <input type="checkbox"/> boring <input type="checkbox"/> wedge <input type="checkbox"/> ripping <input type="checkbox"/> stagger/step	<input type="checkbox"/>

General performance evidence – the candidate has demonstrated their ability to:	Confirmed
1. Satisfy all performance criteria listed above for <i>FWPCOT2254: Maintain chainsaws</i>	<input type="checkbox"/>
2. Carry out a risk assessment of the site, implement control measures required, and report problems to supervisor	<input type="checkbox"/>
3. Assess fallen trees and branches prior to cutting them, and plan the cuts required to maximise efficiency and product re-use (if required)	<input type="checkbox"/>
4. Follow environmental protection procedures that apply to the site and task, including protection of flora, fauna and habitat	<input type="checkbox"/>
5. Identify defects and tension and compression stresses in felled trees and limbs, and mark material that is too dangerous to cut	<input type="checkbox"/>
6. Carry out pre-start checks on all equipment, and wear appropriate PPE	<input type="checkbox"/>
7. Use approved cutting techniques, including securing or stabilising the material where required, in accordance with company procedures and industry standards	<input type="checkbox"/>
8. Modify the cutting techniques in response to unexpected movements or conditions, and use wedges where necessary to release a pinched saw	<input type="checkbox"/>
9. Communicate effectively with other team members and remain aware of the movement of others in the work area	<input type="checkbox"/>
10. Clear debris from the work area, and leave cut material in a position that enables it to be removed, chipped or handled according to supervisor's instructions	<input type="checkbox"/>

Assessor's comments

If the candidate is exiting at this point, leave the remaining parts of this section blank and complete the 'Assessment summary' on the cover page. Your judgement of competency should include the candidate's performance in the Knowledge test (Section 2, Parts A and B) and take into account their background experience and previous accreditations (itemised in Section 1).

FWPCOT2275: Fell trees manually (basic)

Specific performance evidence – the candidate has demonstrated their ability to:	Confirmed
1. Plan and fell 3 'basic' level trees, using a standard scarf cut facing the direction of intended fall, and a chainsaw with an appropriate bar length	<input type="checkbox"/>
2. Cut the scarf at a 30 - 45° angle, depth of 1/4 to 1/3 of tree's diameter; back cut 1/10 (of diameter) above the scarf's bottom cut, leaving 1/10 (of diameter) as hinge wood	<input type="checkbox"/>
3. Use a wedge at least once to ensure accurate directional felling	<input type="checkbox"/>
4. Complete a documented risk assessment for at least one tree (see Section 3 above)	<input type="checkbox"/>
General performance evidence – the candidate has demonstrated their ability to:	Confirmed
1. Satisfy all performance criteria listed above for <i>FWPCOT2254 Maintain chainsaws</i> and <i>FWPCOT2273 Trim and cut felled trees</i>	<input type="checkbox"/>
2. Confirm job specifications and safety and environmental protection requirements with supervisor, and report any problems or issues to supervisor	<input type="checkbox"/>
3. Carry out a risk assessment of the site and implement necessary control measures, including setting up an exclusion zone and traffic control (where required)	<input type="checkbox"/>
4. Communicate effectively with other team members using approved methods, and remain aware of the movement of others at all times	<input type="checkbox"/>
5. Select, inspect and use appropriate PPE, support tools and chainsaw	<input type="checkbox"/>
6. Visually assess tree and felling zone for hazards and characteristics that will affect the way the felling operation will be conducted, and confirm that tree is safe to fell	<input type="checkbox"/>
7. Identify trees outside own skill level, and seek assistance where required	<input type="checkbox"/>
8. Determine the direction of fall, path of escape route, tree felling sequence and cutting sequence for the individual tree, and prepare the felling zone and escape routes	<input type="checkbox"/>
9. Fell the tree using approved cutting techniques, in accordance with industry standards, ensuring that it falls in the direction of the scarf cut	<input type="checkbox"/>
10. Adjust felling techniques in response to changes or unexpected movements	<input type="checkbox"/>
11. Use the planned escape route, and do not re-enter the area until all movement has stopped, including in surrounding trees and overhead branches	<input type="checkbox"/>
12. Report hang-ups to supervisor and describe the process for clearing hang-ups	<input type="checkbox"/>
13. Dispose of material according to workplace and environmental procedures	<input type="checkbox"/>
Assessor's comments – if exiting at this point	

If the candidate is exiting at this point, leave the remaining parts of this section blank and complete the 'Assessment summary' on the cover page. Judgement of competency should include the Knowledge test (Section 2, Parts A, B and C) and background experience and previous accreditations (Section 1).

FWPCOT3350: Fell trees manually (intermediate)

Specific performance evidence – the candidate has demonstrated their ability to:	Confirmed
1. Plan and fell 4 ‘intermediate’ level trees, where: <ul style="list-style-type: none"> • one tree has a diameter that is smaller than the chainsaw bar length (at scarf) <input type="checkbox"/> • one tree has a lean and a diameter smaller than the bar length (at scarf) <input type="checkbox"/> • one tree has a diameter that is larger than the bar length (at scarf) <input type="checkbox"/> • one tree has a lean and a diameter larger than the bar length (at scarf) <input type="checkbox"/> 	
2. Demonstrate 2 of the following scarf techniques (tick the appropriate boxes below): <input type="checkbox"/> standard <input type="checkbox"/> Humboldt <input type="checkbox"/> 90° <input type="checkbox"/> V scarf	<input type="checkbox"/>
3. Demonstrate 2 different back cutting techniques on either forward leaning, side leaning or back leaning trees	<input type="checkbox"/>
4. Demonstrate the use of wedges at least once to ensure that the tree falls in the direction of the scarf	<input type="checkbox"/>
5. Cut the scarf depth between 1/4 and 1/3 of the tree’s diameter, width 2/3 across the front of the tree, back cut 1/10 (diameter) above the scarf bottom cut, leaving 1/10 (diameter) as hinge wood – with the scarf level, not overcut or undercut, and at 90° to the desired direction of fall	<input type="checkbox"/>
6. Complete a documented risk assessment for at least one tree – see form in Section 3 above (or additional form if the Section 3 form has been used for a ‘basic’ level tree)	<input type="checkbox"/>
7. Provide verbal risk assessments to the assessor of the remaining 3 trees felled	<input type="checkbox"/>
8. Provide verbal risk assessments to the assessor of an additional 2 standing trees (at ‘intermediate’ level), and verbally describe how they would be felled	<input type="checkbox"/>

General performance evidence – the candidate has demonstrated their ability to:	Confirmed
1. Satisfy all performance criteria listed above for <i>FWPCOT2254 Maintain chainsaws</i> ; <i>FWPCOT2273 Trim and cut felled trees</i> ; <i>FWPCOT2275 Fell trees manually (basic)</i>	<input type="checkbox"/>
2. Use approved techniques at all times, in accordance with industry standards and the safety criteria listed above in the Basic tree felling ‘General performance checklist’	<input type="checkbox"/>

Assessor’s comments

Judgement of competency should include the Knowledge test (Section 2, Parts A, B, C and D) and background experience and previous accreditations (Section 1).

FWPCOT3351: Fell trees manually (advanced)

Specific performance evidence – the candidate has demonstrated their ability to:	Confirmed
1. Plan and fell 6 'advanced' level trees in total, including the trees described below	<input type="checkbox"/>
2. Fell one tree that meets one of the following descriptions (tick appropriate box): <input type="checkbox"/> lean and weight distribution that adds significant complexity to the fall <input type="checkbox"/> leaning away from the fall zone <input type="checkbox"/> leaning to one side of the fall zone	<input type="checkbox"/>
3. Fell one tree that has a heavy forward lean	<input type="checkbox"/>
4. Fell one tree using one of the following techniques (tick appropriate box): <input type="checkbox"/> centre scarf technique <input type="checkbox"/> cuts from both sides in addition to the scarf and back cut	<input type="checkbox"/>
5. Fell one tree that requires complex techniques due to one or more of the following characteristics (tick appropriate box/s): <input type="checkbox"/> visible lightning damage <input type="checkbox"/> burnt out or fire damaged butt <input type="checkbox"/> complex multi-stems <input type="checkbox"/> multi-legged growth or large multiple leaders <input type="checkbox"/> hollow or stag – dead or alive but with advanced decay <input type="checkbox"/> complex large, low branches	<input type="checkbox"/>
6. Complete a documented risk assessment for at least one tree – see form in Section 3 above (or additional form if the Section 3 form has been used for a tree at 'basic' or 'intermediate' level)	<input type="checkbox"/>

General performance evidence – the candidate has demonstrated their ability to:	Confirmed
1. Satisfy all performance criteria listed above for <i>FWPCOT2254 Maintain chainsaws</i> ; <i>FWPCOT2273 Trim and cut felled trees</i> ; <i>FWPCOT2275 Fell trees manually (basic)</i> ; <i>FWPCOT3350 Fell trees manually (intermediate)</i>	<input type="checkbox"/>
2. Use approved techniques at all times, in accordance with industry standards and the safety criteria listed above in the Basic tree felling 'General performance checklist'	<input type="checkbox"/>

Assessor's comments

Judgement of competency should include the Knowledge test (Section 2, Parts A, B, C, D and E) and background experience and previous accreditations (Section 1).