Supporting: MSFGN2001 Make measurements and calculations

# Assignment for unit

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| **Name** |  | **Date** |  |

Answer the questions below, and show all workings in your calculations.

1. You have decided to put in a concrete driveway and rear carport at your house. You have submitted the plan as shown below to the council.



1. What is the surface area of concrete in square metres?

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1. If the slab is 100 mm thick, how many cubic metres of concrete will there be?

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1. If you allow an extra 10% for minor variations in thickness, how much concrete will you order from the supplier?

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2. A 44 gallon drum has an internal diameter of 570 mm and height of 850 mm.

1. What is the drum’s capacity in litres?
(Use the measurements shown to calculate
the volume.)

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(b) If you filled the drum with water, what would the total weight be? (Water weighs 1 tonne per m3, and the drum itself weighs 10 kg.)

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3. Your chainsaw uses high grade two-stroke oil in a 50:1 ratio with petrol.

If the fuel container holds 5 litres of petrol, how much oil will you need to add?

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4. You are about to put a plywood back on a set of bookshelves.

(a) How will you check with a tape measure whether all four corners of the bookshelf are square?

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5. Choose one measuring instrument that requires calibration, or setting to zero, before it is used.

(a) What is the instrument called?

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(b) What does it measure?

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(c) What is the process of calibrating the instrument?

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(d) What would happen if you took a measurement when the instrument was not calibrated correctly?

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