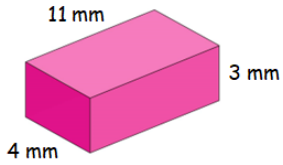
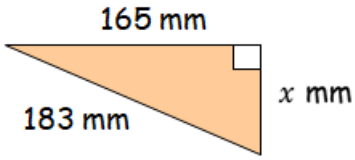
| Name: | Date: |
|---|---|
| 1 Calculate the volume of this prism.<br>  <br> | MTH 411c Silver Outcome 1 |
| 2 Calculate<br>$\sqrt[5]{243}$ | MTH 406a Bronze Outcome 2 |
| 3 Calculate the length of the side marked $x$ in the triangle below.<br>  <br> | MTH 416a Silver Outcome 1 |
| 4 The Nou Camp pitch is 115 yards long. How long is this in metres?<br><br>\| Unit \| Abbrev. \| Metric \|<br>\| --- \| --- \| --- \|<br>\| inch \| in or " \| 2·54 cm \|<br>\| foot \| ft or ' \| 30·48 cm \|<br>\| yard \| yd \| 91·44 cm \|<br>\| mile \| mi or m \| 1·61 km \|<br><br> | MNU 411a Gold Outcome 2 |
| 5 How far did a bus travel in 2 hour 6 mins when its average speed during this time was 50 kilometres per hour?<br><br> | MNU 410a Silver Outcome 2 |
| My score: | |

# Exam Questions

## Question 1:

MTH 415a Silver Outcome 1

Solve algebraically the equation

$4x + 11 = 46 - x.$ **3**

## Question 2:

MTH 414a Silver Outcome 1

Multiply out the brackets and simplify

$3y + 2(x - 4y).$ **2**

## Question 3:

MTH 416a Silver Outcome 2

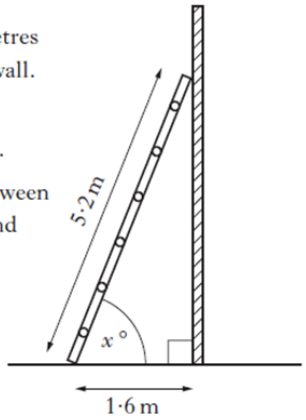
A ladder which is 5·2 metres long is placed against a wall.

The foot of the ladder is 1·6 metres from the wall.

The size of the angle between the ladder and the ground is $x°$.

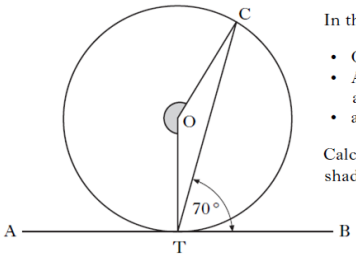
Calculate $x$.

**Do not use a scale drawing.** **3**



## Question 4:

MNU 417a Gold Outcome 1




In the diagram above:

- O is the centre of the circle
- AB is a tangent to the circle at T
- angle BTC = 70°.

Calculate the size of the shaded angle TOC. **3**

## Question 5:

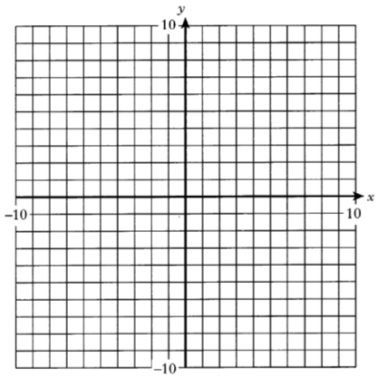
MTH 413d Silver Outcome 1

(*a*) Complete the table below for $y = 3x - 2$.

| $x$ | −2 | 0 | 3 |
|---|---|---|---|
| $y$ | | | |

**2**

(*b*) Using the table in part (*a*), draw the graph of $y = 3x - 2$ on the grid. **2**




## My score: