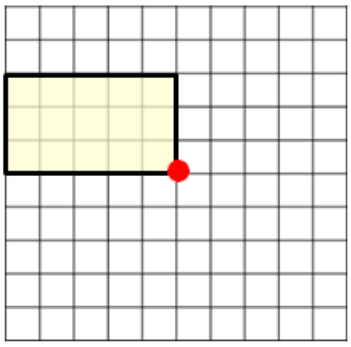
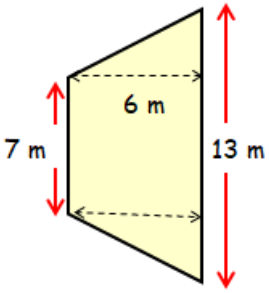
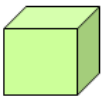
| Name: | Date: |
|---|---|
| 1 Divide £300 in the ratio of 5 : 2 : 3.  | MNU 408a Silver Outcome 2 |
| 2 Calculate $\sqrt[7]{16\,384}$ | MTH 406a Bronze Outcome 2  |
| 3 Complete the shape opposite so that it has rotational symmetry of order 4 around the dot. | MTH 419a Gold Outcome 1  |
| 4 Calculate the area of this trapezium.   | MNU 411a Gold Outcome 1  |
| 5 Calculate the surface area of this cube.   | MTH 411b Bronze Outcome 1 |
| My score: | |

# Exam Questions

## Question 1:

MTH 314a Gold Outcome 2

Use the formula below to find the value of $T$ when $r = 2{\cdot}6$ and $s = 1{\cdot}4$.

$$T = \frac{rs}{r+s}$$ **3**

## Question 2:

MNU 410a Bronze Outcome 1

A Sprinter train travels at an average speed of 144 kilometres per hour.

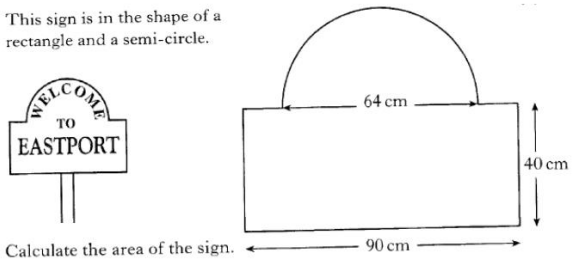
The train takes 1 hour 15 minutes to travel between Dingwall and Aberdeen.

Calculate the distance between Dingwall and Aberdeen. **2**

## Question 3:

MTH 416b Gold Outcome 2

This sign is in the shape of a rectangle and a semi-circle.




Calculate the area of the sign.

Give your answer to the nearest square centimetre. **5**

## Question 4:

MTH 406b Silver Outcome 4

The diameter of a red blood cell is $6{\cdot}5 \times 10^{-3}$ millimetres.

Write this number in full. **2**

## Question 5:

MNU 422a Bronze Outcome 1

A college class consists of 8 male and 12 female students.

A student is chosen at random from the class.

What is the probability that the student is male?

Give your answer as a fraction in its simplest form. **2**

## My score: