Contents

Money Calculations

N7 It is Reg's birthday.
He has £81 to spend.
He wants to buy a stereo and a pair of shoes.

(a) What else can he afford to buy?

..... or ..... *(1 mark)*

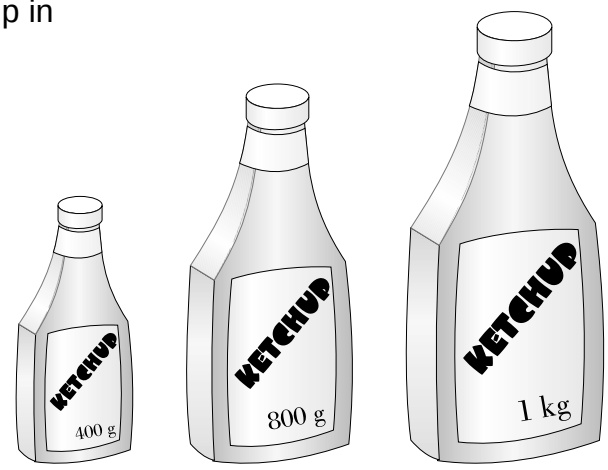
Reg dislikes the stereo and decides not to buy it.

(b) How many bags could he buy with his remaining money?

..... *(1 mark)*

N8 A supermarket sells tomato ketchup in three different sizes.

Which bottle is the best value?



89p £1.69 £2.19

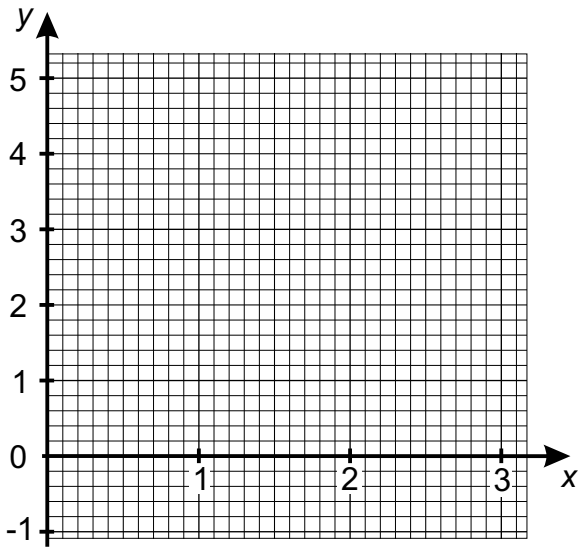
..... *(2 marks)*

A27 **(a)** Complete this table of values for the line $y = 2x - 1$.

x	0	1	2	3
$y = 2x - 1$				

(2 marks)

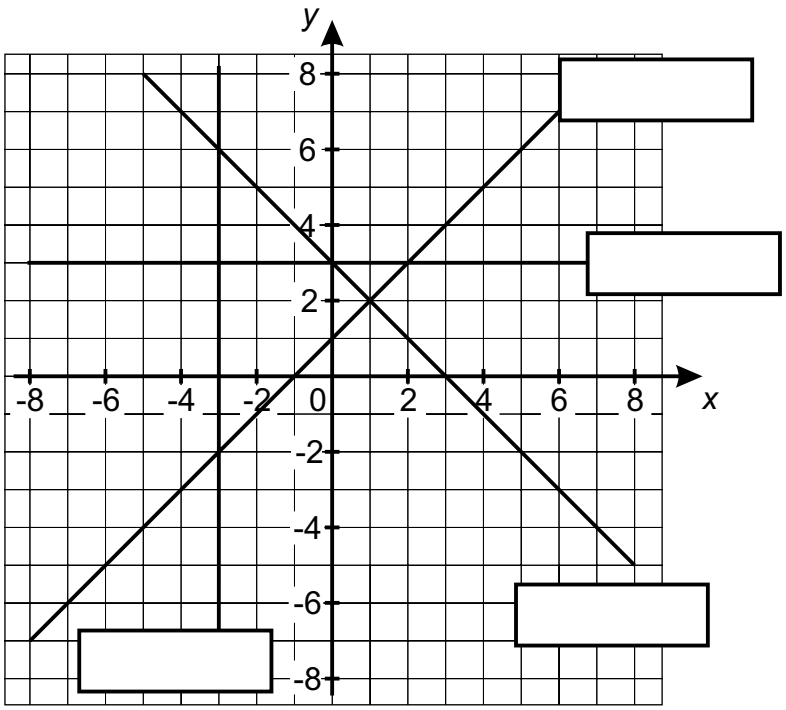
(b) Plot the points and join them together to make a graph.



(1 mark)

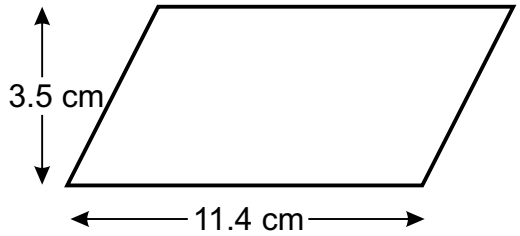
A28 Match these equations to their graphs:

$y = x + 1$ $y = 3 - x$ $y = 3$ $x = -3$



(2 marks)

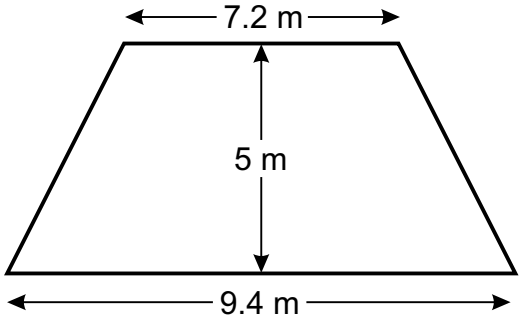
S13 Using suitable formulae, calculate the area of the parallelogram and the trapezium.



(a) area = ... cm^2

(2 marks)

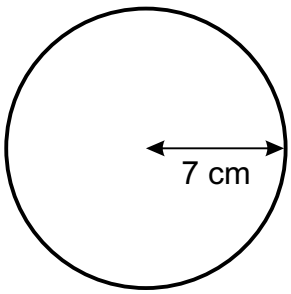
NOT TO SCALE



(b) area = ... m^2

(2 marks)

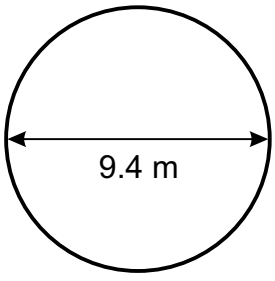
S14 Calculate, using the correct formula, the area of these circles.
Take π as 3.14 or use the π button on your calculator.



(a) area = ... cm^2

(2 marks)

NOT TO SCALE



(b) area = ... m^2

(2 marks)

H17 A card was selected at random from an ordinary pack of 52 playing cards. The card was then replaced and another card selected. 520 cards were selected in all.

(a) How many times would you expect a queen to be picked?

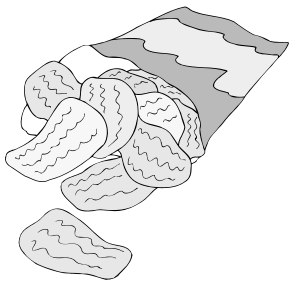
..... *(2 marks)*

(b) How many times would you expect a red king to be picked?

..... *(2 marks)*

H18 Sita always has a packet of crisps with her lunch.
The table below shows the probability that she has a particular flavour of crisps for lunch.

Salt & Vinegar	0.3
Cheese & Onion	0.2
Prawn Cocktail	0.1
Ready Salted	0.3
Roast Chicken	0.1



(a) Calculate the probability of Sita not having *salt & vinegar* flavour crisps with her lunch.

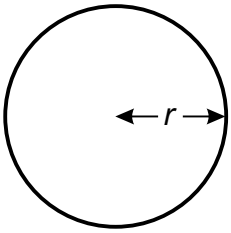
..... *(1 mark)*

(b) Calculate the probability of Sita having *ready salted* or *cheese & onion* flavoured crisps.

..... *(2 marks)*

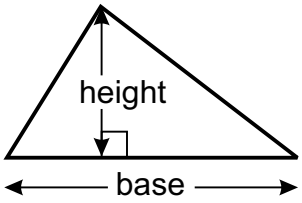
Formulae Sheet

Area Formulae

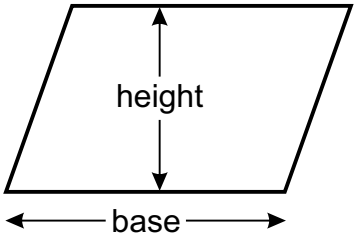


Circle: πr^2

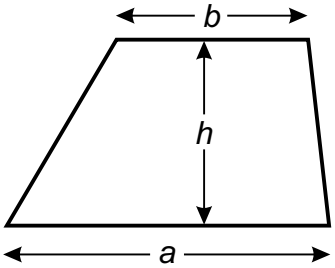
(use $\pi = 3.14$ or your calculator button)



Triangle: $\frac{\text{base} \times \text{height}}{2}$

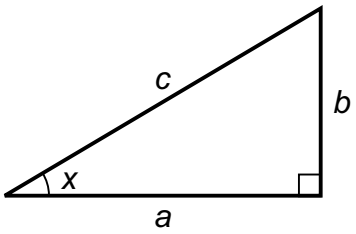


Parallelogram: base × height



Trapezium: $\frac{(a+b)}{2} \times h$

Length Formulae



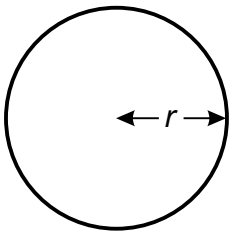
Right-angled triangle:

$a^2 + b^2 = c^2$ (Pythagoras' theorem)

$a = c \cos x$ $\quad \cos x = \frac{a}{c}$

$b = c \sin x$ $\quad \sin x = \frac{b}{c}$

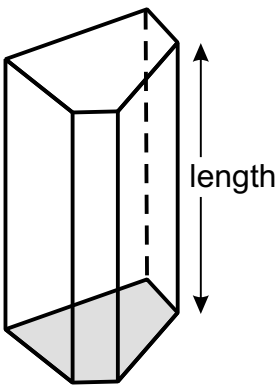
$b = a \tan x$ $\quad \tan x = \frac{b}{a}$



Circle: circumference = $2\pi r$

Volume Formulae

Prism: area of cross-section × length



Mental Arithmetic Answer Sheet

M1

M2 ml

M3

M4 $\frac{2}{15}$

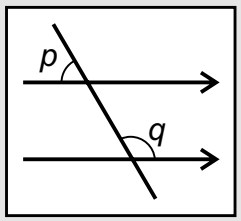
M5 2.4 1.6 2.4 1.6

M6 $p \times p \times p \times p$

M7

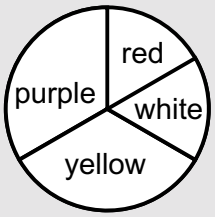
M8 $3x =$ $4x = 20$

M9 °



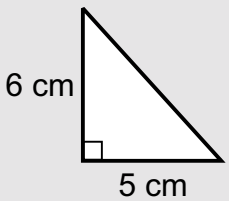
M10 45% 34

M11



M12 %

M13 cm^2



M14 0.2 40

M15 6.2

M16 20 $p = 16$ $q = 34$

M17 3 : 8

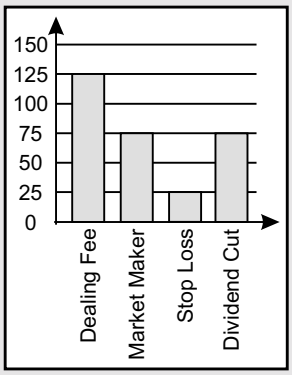
M18

M19 $-6 < y < -2$

M20 $37 \times 42 = 1554$

M21 $\frac{22}{7}$ $\frac{12}{3.9}$ $\frac{31.4}{0.1}$ 2.2×1.4

M22 %



M23 $a =$ $\sqrt{a} = 4b + 7$

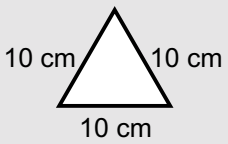
M24

M25 m

M26 2^6 8

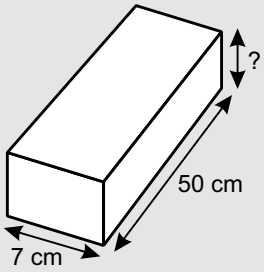
M27

M28



M29 $\frac{101.5 \times 49.4}{\sqrt{24.9}}$

M30 cm



$1400cm^3$