

GCSE Mathematics

Non Calculator Foundation Tier

Free Practice Set 3

1 hour 30 minutes



ANSWERS

Marks shown in brackets for each question (2)

Typical Grade Boundaries

C	D	E	F	G
76	60	47	33	20

Legend used in answers

Green Box - Working out

5b means five times b
 $b = -3$ so $5 \times -3 = -15$

Red Box and ✓ - Answer

48 % ✓

Authors Note

Every possible effort has been made to ensure that everything in this answer paper is accurate and the author cannot accept responsibility for any errors.

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This paper is dedicated to my granddaughter, Poppy Matilda Dew

1. a) Write **7753** correct to the nearest hundred.

Look at the hundreds , tens and ones part of the number : 753.
Is this nearer 700 or 800?
It's nearest 800 so to nearest hundred, the whole number is 7800

7800 ✓

(1)

- b) What is **seven thousand and forty nine** in figures.

When we write numbers we start with a units or ones (0-9) column.
When we reach 10 we start the tens column (10-99).
When we reach 100 we start the hundreds column (100-999).
When we reach 1000 we start the thousands column.
In this question we have 7 Thousands, no hundreds, four tens and nine ones

Thousands	Hundreds	Tens	Ones
7	0	4	9

7,049 ✓

(1)

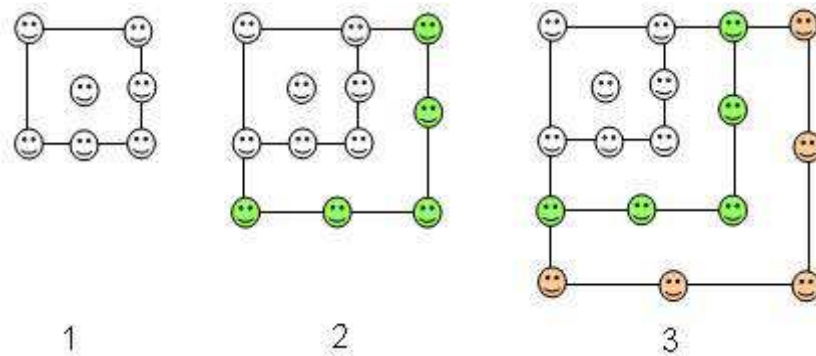
- c) What is the value of the 8 in 4827.

The 8 is in the hundreds column so it's 800

800 ✓

(1)

2. The first three parts of a pattern of mini faces is shown.



a) How many faces will be in the fourth and fifth part?

Count the faces in each pattern:

Pattern:	1	2	3	4	5
	7	12	17	?	?

It is going up by adding 5 to the last part each time.

So the 4th part = $17 + 5 = 22$ and the 5th part is $22 + 5 = 27$

4th **22** 5th **27** (2)

b) What is the expression in terms of n , for the total in pattern number n .

Since the pattern goes up in steps of 5 it's just like the 5 times table

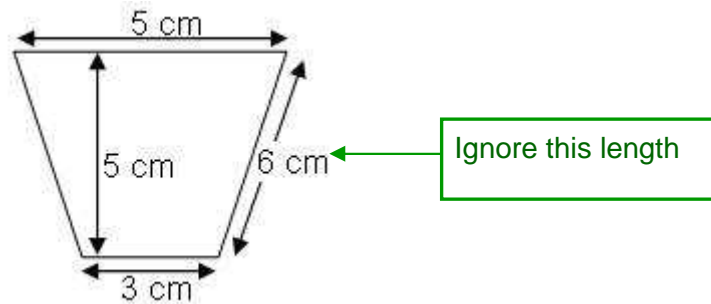
5 10 15 20 25 we can write this as $5 \times n$ or $5n$

But our pattern starts at 7 instead of 7 so we have to add 2 to every number

7 12 17 22 27 we can write this as $5n + 2$

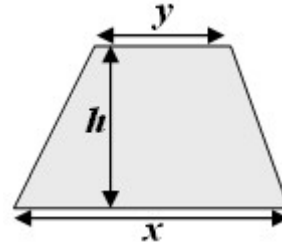
..... **$5n + 2$** (2)

3. a) Work out the area of the trapezium shown below:



You are given the formula for the area of a trapezium at the front of the exam paper.

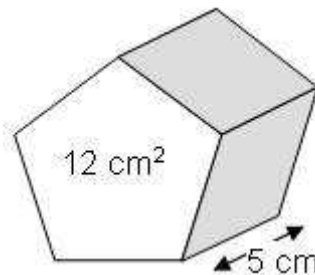
$$\begin{aligned} \text{Area of trapezium} &= \frac{1}{2}(x + y)h \\ \text{Area} &= \frac{1}{2}(3 + 5) \times 5 \text{ cm} \\ &= \frac{1}{2}(8) \times 5 \\ &= \frac{1}{2}(40) = 20 \text{ cm}^2 \end{aligned}$$



20cm²

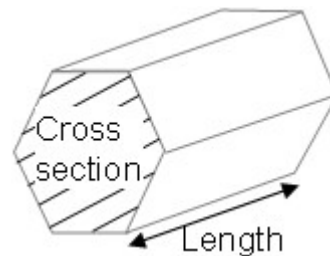
(2)

- b) Work out the volume of the prism shown below



You are given the formula for the volume of a prism at the front of the exam paper

$$\begin{aligned} \text{Volume of prism} &= \text{area of cross section} \times \text{length} \\ &= 12 \text{ cm}^2 \times 5 \text{ cm} \\ &= 60 \text{ cm}^3 \end{aligned}$$

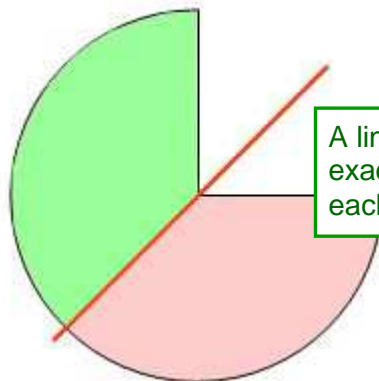


60cm³

(2)

4. a) Draw a line of symmetry on the shape below

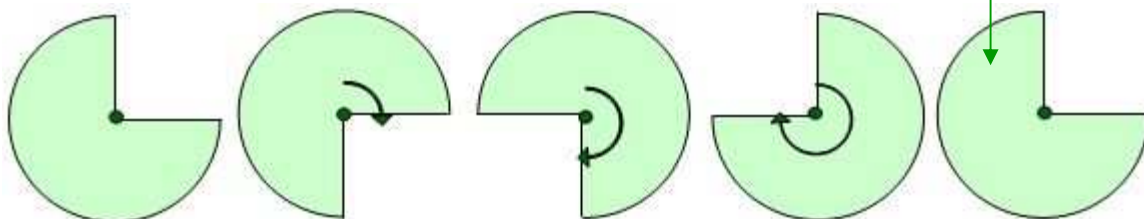
(1)



A line of symmetry cuts the shape exactly in half so that the shape on each side of the line is the same

b) What is the order of rotational symmetry for the shape

Shape looks like the original position



In one full rotation we count how many times the shape looks like the original position. In this case it happens only once. So order of rotational symmetry is 1

..... 1 (1)

5. From the list of numbers below:

- | | | | |
|----|----|----|----|
| 12 | 30 | 42 | 54 |
|----|----|----|----|

a) What is the highest common factor

The HCF is the largest number that will go into (divide into) all these numbers. Look at the smallest number 12, and find all the numbers that go into it: 2, 3, 4, 6 and 12

Pick the largest of these and see if it goes into the other numbers. 12 won't go into 30 so we can't use that. 6 goes into 30 = 5×6 ; it also goes into 42 = 7×6 and it also goes into 54 = 9×6 So 6 is the highest common factor

6 ✓

(1)

b) Which one is a multiple of 9

A multiple of 9 means the 9 times table: 9, 18, 27, 36, 45, 54
In our list we have 54 which is 6×9

54 ✓

(1)

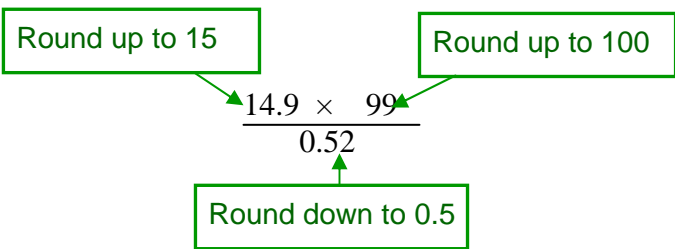
c) Write down three prime numbers between 12 and 30

A prime number is a number that only 1 or itself will divide into. After 12 we have 13, 17, 19, 23 and 29

13, 17, 19, 23 or 29 ✓

(2)

6. Estimate



We get $\frac{15 \times 100}{0.5} = \frac{1500}{0.5}$ or $\frac{1500}{\frac{1}{2}}$

Be **CAREFUL** this is not 750.

$\frac{1}{\frac{1}{2}} = 2$ because there are two halves in 1

There are 3000 $\frac{1}{2}$'s in 1500

3000 ✓

(3)

When you have anything divided by 0.5 just double it!

7. The formula $a = \frac{(v-u)}{t}$ gives the acceleration a of an object

Find the value of a when:

a) $v = 32, u = 8$ and $t = 3$

Replace the letters with the values given. Do the brackets first.

$$\text{So } a = \frac{(v - u)}{t} = \frac{(32 - 8)}{3} = \frac{24}{3} = 8$$

8 ✓

(2)

b) if $a = 12, t = 2$ and $v = 30$ find u

Replace the letters with the values given.

$$a = \frac{(v - u)}{t} \quad \text{so} \quad 12 = \frac{(30 - u)}{2}$$

We need to get u on its own on one side of the equation

$$\times \text{ both sides by } 2, \quad 12 \times 2 = (30 - u)$$

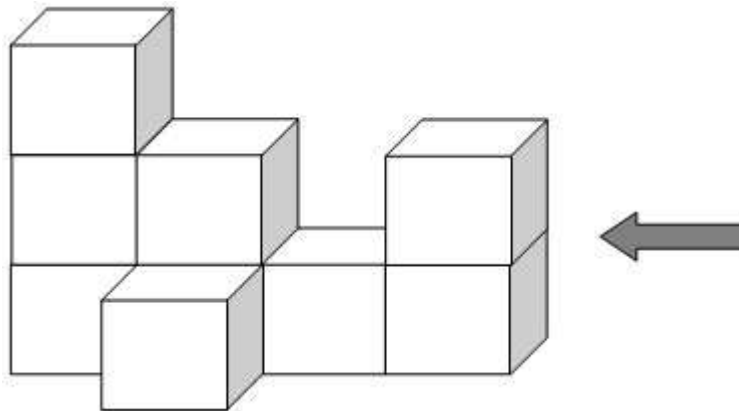
$$+ u \text{ to both sides,} \quad 24 + u = 30$$

$$-24 \text{ from both sides} \quad u = 6$$

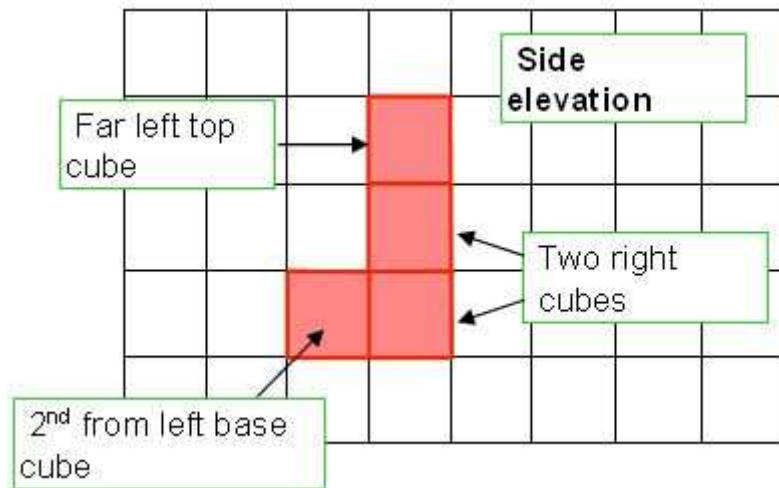
6 ✓

(2)

8. The diagram shows some identical cubes arranged to make a solid object.

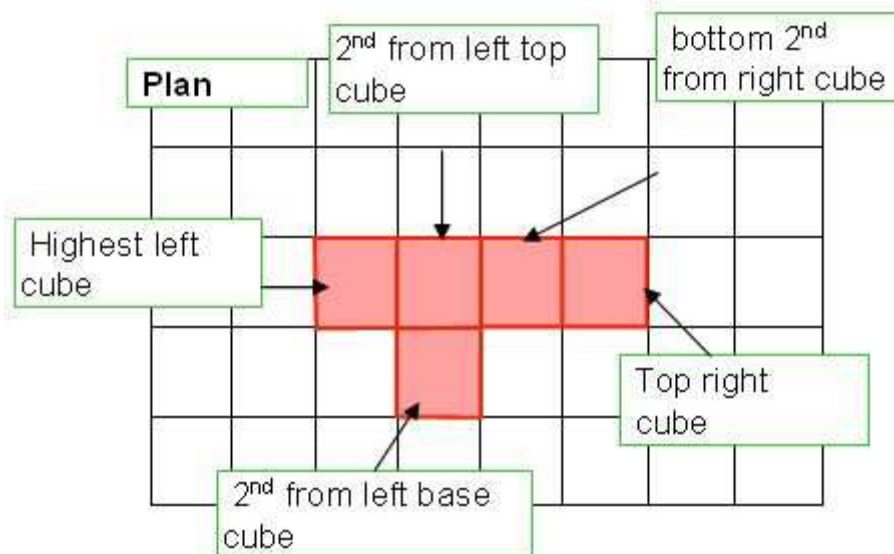


a) On the grid shown below draw the side elevation of the solid object as seen from the direction of the arrow.



(2)

b) Draw a plan of the solid object on the grid below.



(2)

9. For the following, what is the metric unit

a) The weight of an apple	100 grams.....
b) The height of the Eiffel Tower	324 metre ✓
c) The volume of a bucket	8 litres ✓
d) The distance between London and Manchester	304 kilometres ✓

(3)

10. What is

a) -8×-3

$8 \times 3 = 24$
We have minus x minus so that's plus

REMEMBER

$- \times - = +$

+24 ✓

(1)

b) $6 \times 3 - 2$

$6 \times 3 = 18$
 $18 - 2 = 16$

REMEMBER

x before -

+16 ✓

(1)

c) $8 + 6 \div (4 + 2)$

$4 + 2 = 6$
 $6 \div 6 = 1$
 $8 + 1 = 9$

REMEMBER

Brackets 1st, ÷ next

+9 ✓

(1)

d) $1.46 + 1.75$

Separate ones, tenths and hundredths,
Put the decimal point in its own column

1s, . 1/10, 1/100

$$\begin{array}{r} 1 \ . \ 4 \ 6 \\ + 1 \ . \ 7 \ 5 \\ \hline \end{array}$$

Add 6 and 5 = 11
Put the 1 in the hundredths
carry the 1 into the next column

$$\begin{array}{r} 1 \ . \ 4 \ 6 \\ + 1 \ . \ 7 \ 5 \\ \hline \ . \ 1 \ 1 \end{array}$$

Add 4 and 7 and the carry 1
 $4 + 7 + 1 = 12$
Put the 2 in the tenths
Miss the point column
Carry the 1 into 1's

$$\begin{array}{r} 1 \ . \ 4 \ 6 \\ + 1 \ . \ 7 \ 5 \\ \hline \ . \ 2 \ 1 \end{array}$$

Add 1 and 1 and the carry 1.
 $1 + 1 + 1 = 3$
Put the 3 in the ones column

$$\begin{array}{r} 1 \ . \ 4 \ 6 \\ + 1 \ . \ 7 \ 5 \\ \hline 3 \ . \ 2 \ 1 \end{array}$$

$$3 \ . \ 2 \ 1$$

3.21

(1)

e) Arrange these decimals from *smallest to largest*

2.5 2.55 2.505 2.05

$$\begin{array}{r} 2 \ . \ 5 \ 0 \ 0 \\ 2 \ . \ 5 \ 5 \ 0 \\ 2 \ . \ 5 \ 0 \ 5 \\ 2 \ . \ 0 \ 5 \ 0 \end{array}$$

Write the decimals as shown.
Add zeros at the ends.
It makes it easy to compare

Look at numbers after the
decimal points to put them
in order. Ignore 0's at front

050
500
505
550

2.05, 2.5, 2.505, 2.55

(1)

e) $234 \div 9$.

Lay out your division like this $9 \overline{) 234}$

Will 9 go into 2? - NO $9 \overline{) \color{red}2}34$

Try the next two digits
Will 9 go into 23? YES $9 \overline{) \color{red}23}4$

How many times will 9 go into 23?
Twice: $2 \times 9 = 18$
Put 2 at the top. $9 \overline{) \color{red}2}34$

Is there a remainder
YES : $23 - 18 = 5$.
Put 5 before the next digit (4) $9 \overline{) 23\color{red}^5}4$

Will 9 go into 54
YES: six times
 $6 \times 9 = 54$
Put 6 at the top $9 \overline{) 23\color{red}^5}4$

Is there a remainder
NO : we have finished $9 \overline{) 23\color{red}^5}4$

26 ✓

(2)

11. What is:

a)

$$\frac{1}{3} + \frac{4}{5}$$

↑ ↑
denominators

REMEMBER when we add fractions the **denominators** have to be the **same**

Find a denominator by multiplying $3 \times 5 = 15$

$$\frac{1}{3} + \frac{4}{5} = \frac{?}{15} + \frac{?}{15}$$

To get the ? we ask what we multiplied the bottom of the fraction by to get 15

The bottom 3 was multiplied by 5 so we have to multiply the top 1 by 5 = 5
The bottom 5 was multiplied by 3 so we have to multiply the top 4 by 3 = 12

$$\frac{1}{3} + \frac{4}{5} = \frac{5}{15} + \frac{12}{15} = \frac{17}{15} \text{ or } 1\frac{2}{15}$$

Now we can add the fractions

$\frac{17}{15}$

(2)

b)

$$\frac{2}{3} \times \frac{3}{5}$$

Just multiply denominators and numerators
But first **CANCEL** the 3 at top and the 3 at bottom

$\frac{2}{5}$

(2)

c) What is 70% of 90

$$\frac{70}{100} \times \frac{90}{1} = 7 \times 9 = 63 \text{ Cancel twice}$$

63

(1)

d) Change these numbers into percentages and arrange them from *smallest to largest*

0.35

$\frac{3}{12}$

$\frac{2}{5}$

0.09

35%

$\frac{1}{4} = 25\%$

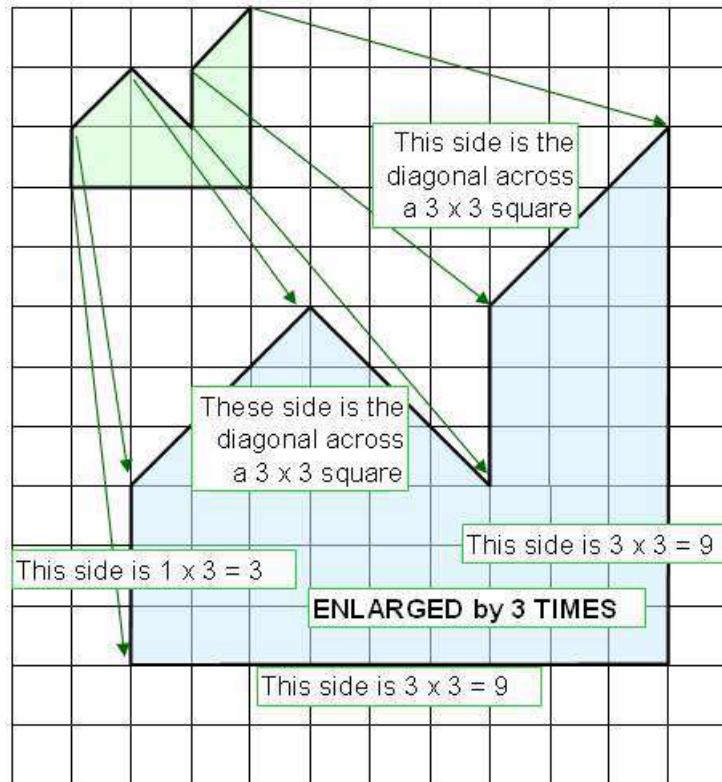
40%

9%

9%, 25%, 35%, 40%

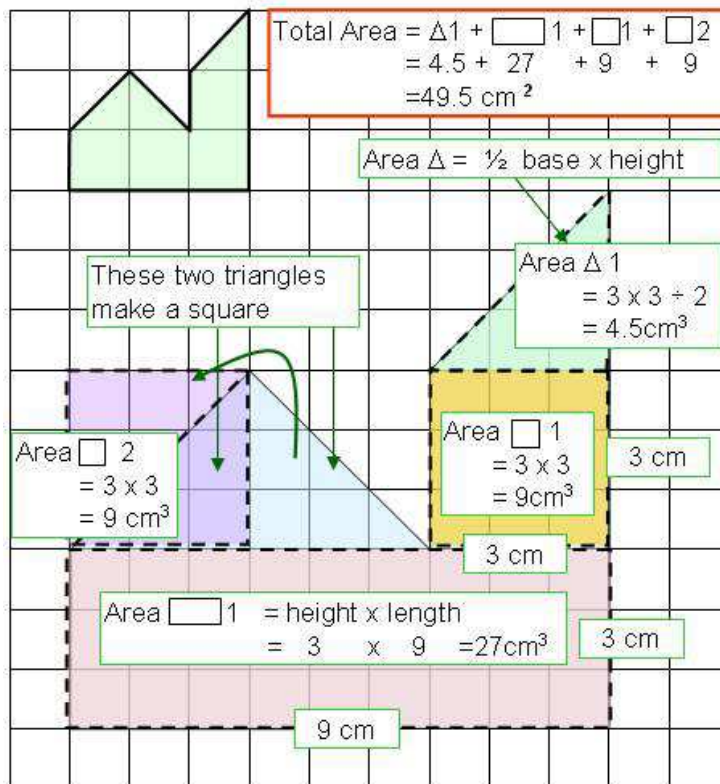
(2)

- 12 a) Enlarge the shape shown on the centimetre grid below by a scale factor of 3



(2)

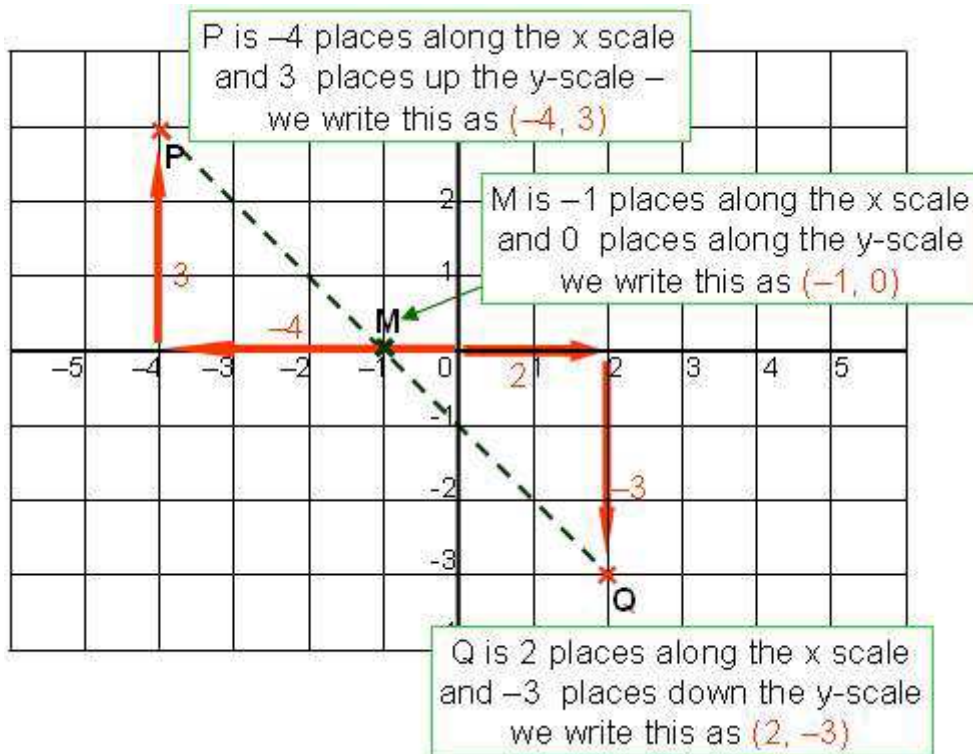
- b) What is the *AREA* of the enlarged shade you have drawn?



49.5cm³

(2)

13.



a) What are the co-ordinates of point P

- 4 , 3 ✓
(.....,)
(1)

b) What are the co-ordinates of point Q

2 , -3 ✓
(.....,)
(1)

c) Draw a line between P and Q. Label the midpoint M
What are the co-ordinates of the point M?

- 1 , 0 ✓
(.....,)
(1)

14. Jane turned a spinner marked with the numbers 1 to 8

a) As a *fraction* what is the probability she got the number 4 or more

Probability is how likely (probable) something is to happen.
 Probability = $\frac{\text{Number of actual possibilities you want}}{\text{Total number of possibilities}}$

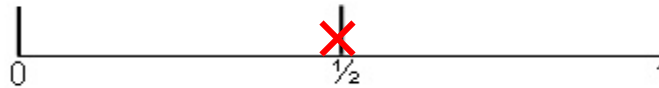
$$\text{Probability} = \frac{4 \text{ or } 5 \text{ or } 6 \text{ or } 7 \text{ or } 8}{8 \text{ possibilities}} = \frac{5}{8}$$

$$\frac{5}{8}$$

(1)

b) Mark the probability scale to show the probability that the spinner will land on the number 5 or more

$$\text{Probability} = \frac{5 \text{ or } 6 \text{ or } 7 \text{ or } 8}{8 \text{ possibilities}} = \frac{4}{8} = \frac{1}{2}$$



(1)

c) As a *percentage* what is the probability that the spinner will land on the number 7 or more

$$\text{Probability} = \frac{7 \text{ or } 8}{8 \text{ possibilities}} = \frac{2}{8} = \frac{1}{4} = 25\%$$

$$25\%$$

(1)

d) The probability that the spinner will land on a six is 0.12.
 What is the probability that it will NOT land on a six.

Total probabilities ADD up to 1

$$\begin{aligned} \text{Probability (6)} + \text{Probability (not 6)} &= 1 \\ 0.12 + \text{Probability (not 6)} &= 1 \\ \text{Probability (not 6)} &= 1 - 0.12 = 0.88 \end{aligned}$$

$$0.88$$

(1)

15. Matthew bought some mp3 downloads
 Each download costs 60 pence each
 He spent £7.20.

a) How many downloads did he buy?

Divide 720 by 60 to get the answer in pence = $\frac{720}{60} = 12$

Or multiply 60 until you get to 720

The cost of 10 = $60 \times 10 = 600$ leaving 120 more needed
 $60 + 60 = 120$ so we have another 2
 In total he bought $10 + 2 = 12$

12 ✓
 (2)

b) Matthew found he could get 25% off the £7.20 he paid for his downloads.
 How much would he pay with the 25% off?

$25\% = \frac{1}{4}$. If you half 720 and then half it again you get $\frac{1}{4}$ of 720

$720 \div 2 = 360$ $360 \div 2 = 180$
 Now take 180 away from 720 = 540

Take 0 from 0 .
 Put 0 at bottom

$$\begin{array}{r} 720 \\ -180 \\ \hline 0 \end{array}$$

Take 8 from 2 .
 Can't do it so borrow 1
 from hundreds column

$$\begin{array}{r} 7^1 20 \\ -180 \\ \hline 0 \end{array}$$

Put a 1 with the 2 = 12
 Put a -1 with the 1

$$\begin{array}{r} 7^1 20 \\ -180 \\ \hline 40 \end{array}$$

Take 8 from 12 = 4

Take 2 (1+1) from 7 = 5

$$\begin{array}{r} 7^1 20 \\ -180 \\ \hline 540 \end{array}$$

£... 5.40 ✓
 (2)

- c) Matthew bought an iPod-touch for £210
VAT on the iPod-touch is 15 %

How much does the iPod-touch cost including VAT?

10% of £210	= £21.00
5% is half this	= £10.50
	£31.50
Total cost =	£ 31.50
	+ £210.00
	£ 241.50

£..... **241.50** ✓
(2)

- d) Stuart and Laura also bought some downloads.
Laura bought y downloads
Stuart bought five times as many as Laura

Write an expression in terms of y , for the total number of downloads Laura and Stuart bought

Laura bought	y downloads
Stuart bought five times as many	$= 5y$ downloads
Total downloads	$= 5y + y = 6y$

6y ✓
.....
(1)

16. Some children were asked to pick their favourite pet from a choice of dog, cat, rabbit, mouse, guinea pig or lizard. Some of the results are show.

Start with a column or row that has only one number missing

1. $21 - 6 = 15$

	Boys	Girls	Total
Dog	6	15	21
Cat	2	8	10
Mouse	7	2	9
Rabbit	3	6	9
Lizard	21	2	23
Guinea Pig	2	6	8
Total	41	39	80

2. $23 - 2 = 21$

3. $8 - 2 = 6$

3. $41 + 39 = 80$

3. $3 + 6 = 9$

Fill in the missing values

(3)

17. What is 243×37

The older traditional method

Separate thousands, hundreds, tens and units with dotted lines. We have added 1000's in case we need it later

1000s, 100s, 10s, 1s

Multiply 243 by the 3 first

$$\begin{array}{r|c|c|c} 2 & 4 & 3 & \\ \hline \times & 3 & 7 & \\ \hline \end{array}$$

Since the 3 is really thirty write a zero in the units

$$\begin{array}{r|c|c|c} 2 & 4 & 3 & \\ \hline \times & 3 & 7 & \\ \hline & & & 0 \end{array}$$

Now do $3 \times 3 = 9$. Write to left of zero in tens

$$\begin{array}{r|c|c|c} 2 & 4 & 3 & \\ \hline \times & 3 & 7 & \\ \hline & 9 & & 0 \end{array}$$

Now do $3 \times 4 = 12$. Put the 2 in the hundreds but carry the 1 into the next column

$$\begin{array}{r|c|c|c} 2 & 4 & 3 & \\ \hline \times & 3 & 7 & \\ \hline 1 & 2 & 9 & 0 \end{array}$$

Now do $3 \times 2 = 6$. Add this to the one we carried $6 + 1 = 7$. Put the 7 in the next column

$$\begin{array}{r|c|c|c} 2 & 4 & 3 & \\ \hline \times & 3 & 7 & \\ \hline 1 & 2 & 9 & 0 \\ 7 & 2 & 9 & 0 \end{array}$$

Draw a dotted line under the 7290

Multiply 243 by the 7 next

1000s, 100s, 10s, 1s

$$\begin{array}{r|c|c|c} 2 & 4 & 3 & \\ \hline 1 & \times & 3 & 7 \\ \hline 7 & 2 & 9 & 0 \end{array}$$

7×3 is 21. Write the 1 in the units BUT carry the 2 to the tens.

$$\begin{array}{r|c|c|c} 2 & 4 & 3 & \\ \hline 1 & \times & 3 & 7 \\ \hline 7 & 2 & 9 & 0 \\ & & 2 & 1 \end{array}$$

Now do $7 \times 4 = 28$. Add the 2 you carried $28 + 2 = 30$. Put 0 in the tens. Carry the 3 to the next column

$$\begin{array}{r|c|c|c} 2 & 4 & 3 & \\ \hline 1 & \times & 3 & 7 \\ \hline 7 & 2 & 9 & 0 \\ & 3 & 2 & 0 & 1 \end{array}$$

Now do $7 \times 2 = 14$. Add the 3 you carried $14 + 3 = 17$. Put the 7 in the next column. Put the 1 in the next column

$$\begin{array}{r|c|c|c} 2 & 4 & 3 & \\ \hline 1 & \times & 3 & 7 \\ \hline 7 & 2 & 9 & 0 \\ & 1 & 3 & 7 & 2 & 0 & 1 \end{array}$$

Now add the two numbers

$$\begin{array}{r} 7 & 2 & 9 & 0 \\ + & 1 & 7 & 0 & 1 \\ \hline 8 & 9 & 9 & 1 \end{array}$$

The 'New' grid method

Put the two numbers in a grid
Draw diagonals as shown

Start with 3 on right and work to left along row

2	4	3	
			3
			7

Repeat for next row
From right to left

2	4	3	
0	6	1	0
1	4	2	8
			2
			1
			7

$3 \times 3 = 9$ - Put 0 in top half of square, 9 in bottom

2	4	3	
			0
			9
			3
			7

ADD diagonal columns from right to left
Put answer at bottom

2	4	3	
0	6	1	0
1	4	2	8
			2
			1
			7

$4 \times 3 = 12$ - Put 1 in top half of square, 2 in bottom

2	4	3	
			1
			2
			9
			3
			7

$$1 + 6 + 1 = 8$$

$$4 + 2 + 2 + 1 \text{ (carried)} = 9$$

Just 1 here

$$9 + 2 + 8 = 19$$

9 down CARRY the 1

$2 \times 3 = 6$ - Put 0 in top half of square, 6 in bottom

2	4	3	
0	6	1	0
1	4	2	8
			2
			1
			7

8991

(2)

18.

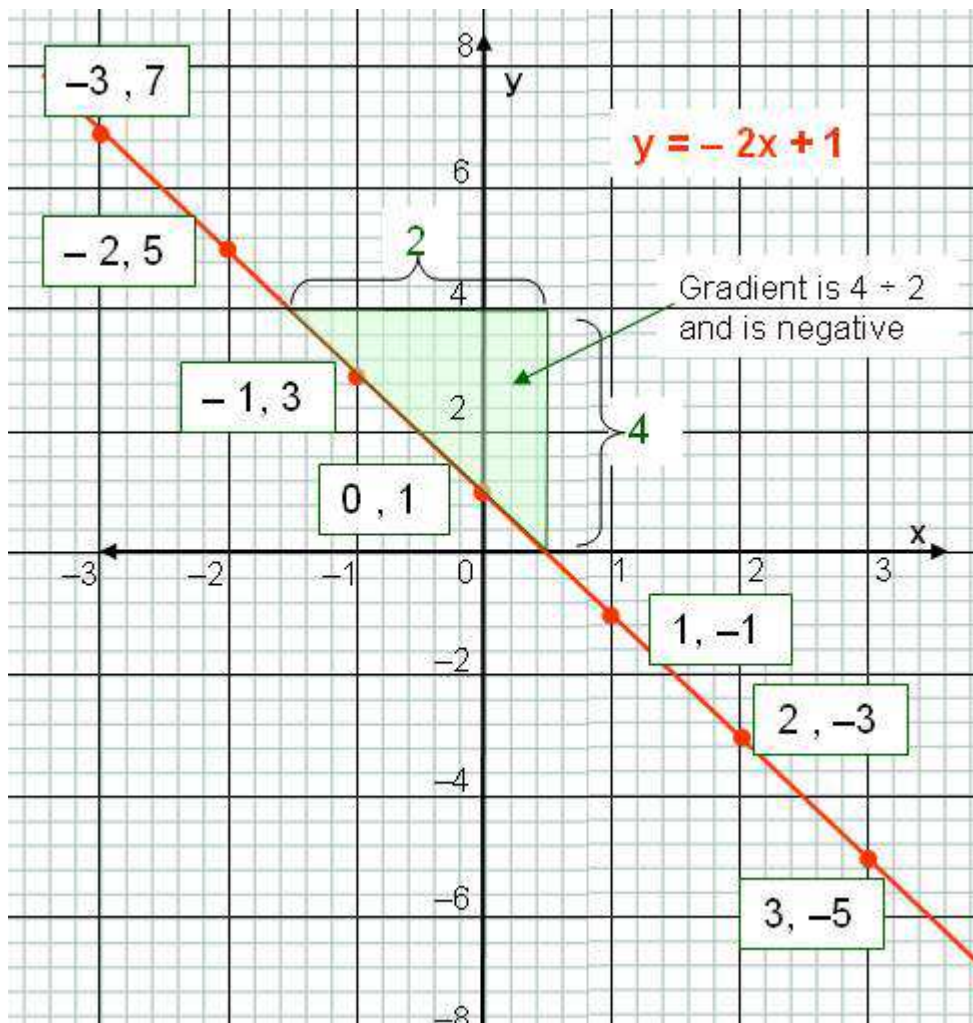
- a) Complete the table of values for $y = -2x + 1$ below.
Some of the working out has been done for you

x	-3	-2	-1	0	1	2	3
-2x	$-2 \times -3 =$ $+6$	$-2 \times -2 = 4$	$-2 \times -1 =$ $+2$	$-2 \times 0 = 0$	$-2 \times 1 =$ -2	$-2 \times 2 = -4$	$-2 \times 3 = -6$
+1	+1	+1	+1	+1	+1	+1	+1
= y	7	5	3	1	-1	-3	-5

(2)

Notice that each value of y goes down in steps of 2

- b) Plot the graph for $y = -2x + 1$



(2)

- c) What is the gradient of this line graph

The gradient is the value in the x term which is -2 .
From the triangle drawn on the graph you can see it is the

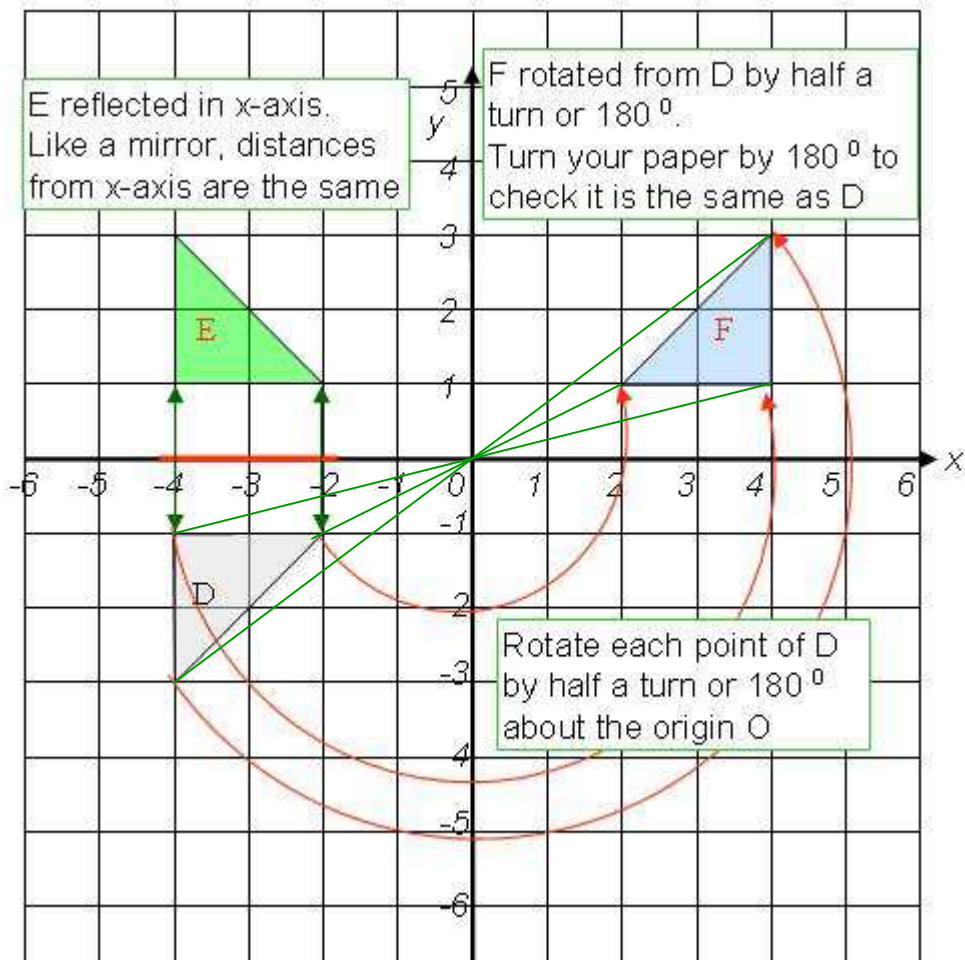
$$\frac{\text{change in } y}{\text{change in } x} = \frac{4}{2}$$

It has a negative gradient so the value is minus

-2

(1)

19.



Triangle D is shown above.

- a) Reflect the triangle D in the x-axis
Label the triangle E

(1)

- b) Rotate the triangle D by 180 degrees centre O
Label the rotated triangle F

(2)

20. a) Simplify:

i) $x + 3 - 2x + 3x$

Simplify means put all the terms of the same type together.
In this case we have $x + 3x - 2x = 2x$ and a 3

$2x + 3$ ✓

(1)

ii) $8y \times 3y^2$

This is $8 \times y \times 3 \times y \times y = 24 \times y \times y \times y$
We write $y \times y \times y$ as y^3 . So we have $24y^3$

$24y^3$ ✓

(1)

b) Solve

$6x - 14 = 10$

Get rid of the 14 on the left side by adding 14 to both sides
 $6x - 14 + 14 = 10 + 14$ so $6x = 24$
Divide both sides by 6 so we only have x on the left. $x = 24 \div 6 = 4$

4 ✓

x =

(1)

c) Expand and simplify:

$3(x + 4y) + 2(5x - 3y)$

Expand means multiply out the brackets:

$3(x + 4y) = 3x + 12y$
 $2(5x - 3y) = 10x - 6y$

Simplify by putting same types together

$3x + 12y + 10x - 6y = 13x + 6y$

$13x + 6y$ ✓

(2)

d) Solve

$9(x + 2) = 7x + 23$

Expand the left side first: $9x + 18 = 7x + 23$
(-18 from both sides) $9x = 7x + 5$
(- 7x from both sides) $2x = 5$
(÷ 2) $x = 5 \div 2 = 2 \frac{1}{2}$

$2 \frac{1}{2}$ ✓

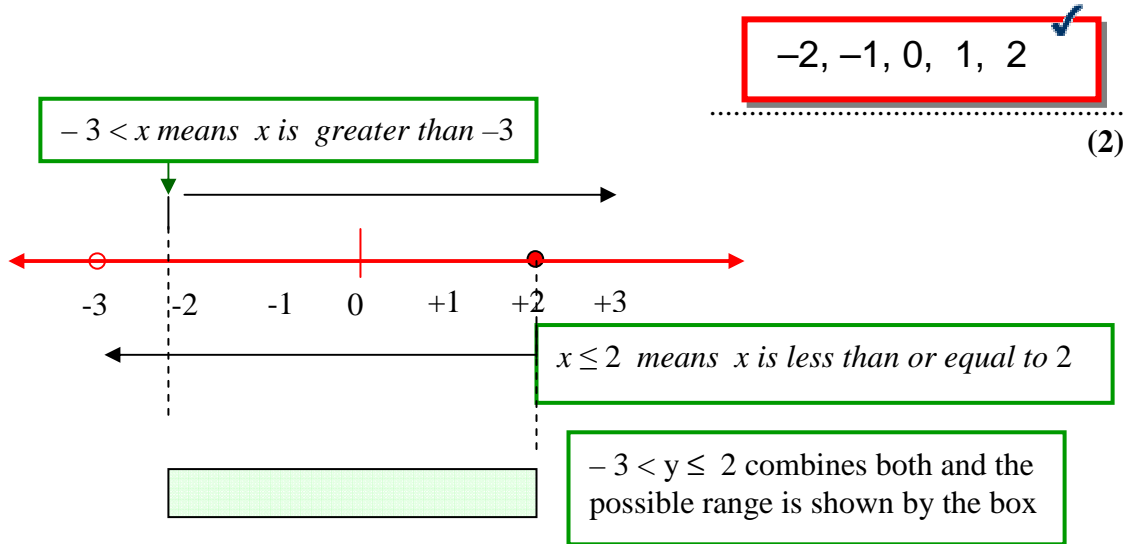
x =

e) $-3 < x \leq 2$

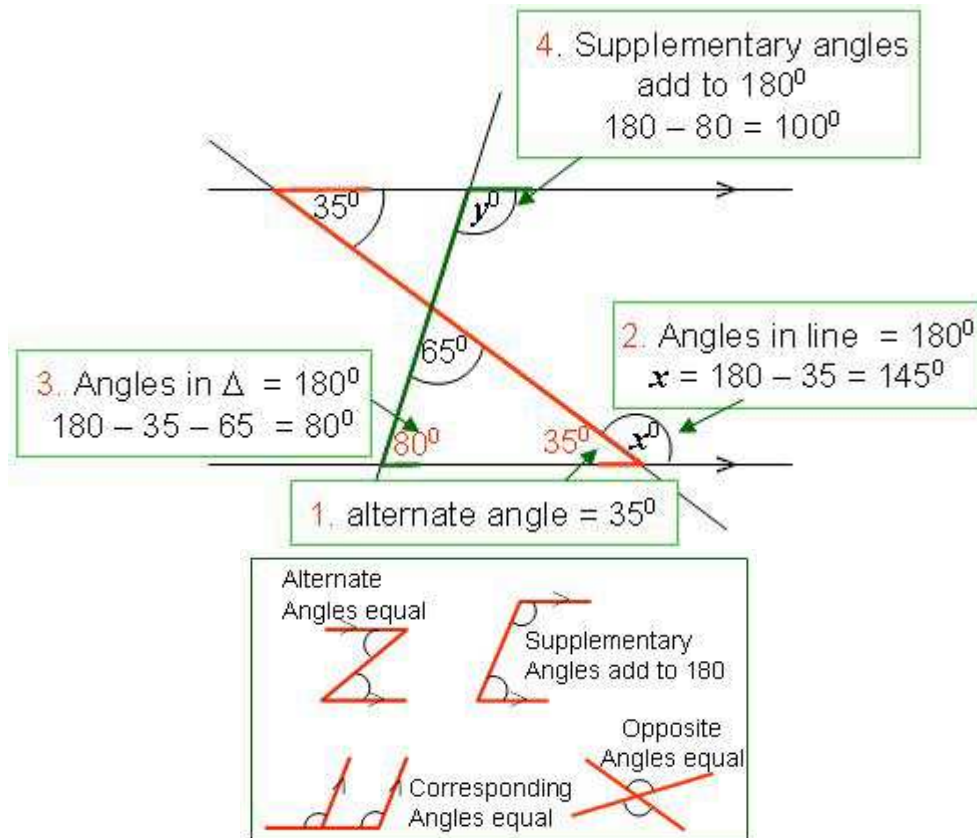
x is an integer.

$A \leq B$ means B is greater than A or equal to A
 $B < C$ means B is less than C

Write down all the possible values of x .



21. The diagram shows two parallel lines and two other lines which intersect



a) Work out the size of angle x

$x =$ **145** $^{\circ}$
(1)

b) Explain how you got your answer

1. Alternate angle = 35, 2. $x = 180$ (straight line) - 35 = 145 .. (1)

c) Work out the size of angle y

$y =$ **100** $^{\circ}$
(1)

d) Explain how you got your answer

..... **3. Angles in $\Delta = 180$, angle = 80,
4. Supplementary angle $y = 180 - 80 = 100$** .. (1)

22. Chris, Tom and Natasha shared out £480 between them in the ratio 1 : 3 : 4

How much did they each get.

Add up the ratios $1 + 3 + 4 = 8$. we have 8 parts

Divide £480 by 8 = £60. One part = £60

Chris gets $1/8^{\text{th}} = £60$,
 Tom gets $3/8^{\text{th}} = 3 \times £60 = £180$
 Natasha gets $4/8^{\text{th}} = 4 \times £60 = £240$

Chris	£.	60
Tom	£.	180
Natasha	£..	240

(2)

23. A shop recorded the types of drinks bought by 90 customers for Christmas

Drink	Frequency	Angle
Wine	30	120
Beer	35	140
Spirits	10	40
Champagne	15	60

- a) Complete the table above

To get how much 1 customer is in degrees, divide 360° by 90 customers = 4° .
 Frequency is the number of customers.

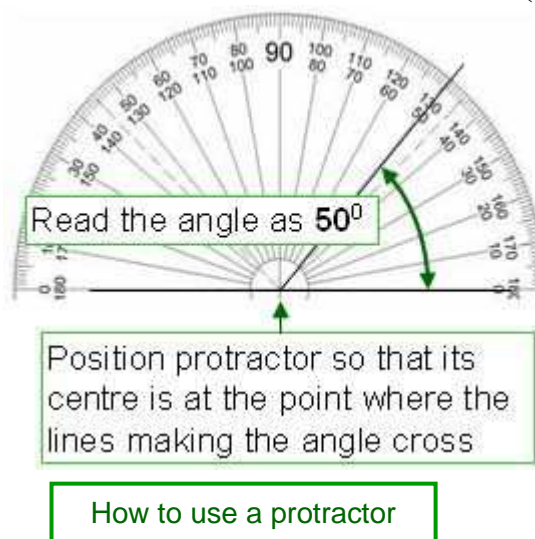
For Beer we have 35 customers $= 35 \times 4^{\circ} = 140^{\circ}$
 For champagne we have 15 customers $= 15 \times 4^{\circ} = 60^{\circ}$

For spirits we have 40 To convert to frequency divide this by $4^{\circ} = 10$

(2)

- b) Draw an accurate pie chart to show this information. The first drink has been done for you.

(2)



24. a) What is the median for these numbers 4 1 3 5 6

The MEDIAN is the middle value.
 Arrange numbers in order: 1 3 4 5 6

4

 (1)

b) What is the mean for these numbers 2 3 4 4 7

The MEAN = $\frac{\text{all the values added together}}{\text{The number of values}} = \frac{2 + 3 + 4 + 4 + 7}{5} = \frac{20}{5}$

4

 (2)

c) Hosanna counted the number of sweets in 30 sweet packets. She got the following results.

14	18	25	26	33	43	28	12
41	42	48	27	38	45	23	13
8	11	14	20	43	19	33	
32	32	36	36	8	9	27	

Draw a stem and leaf diagram to show these results with this Key: 4 | 1 = 41 letters

Arrange them in sequence smallest first

8 8 9 11 12 13 14 14 18 19 20 23 25 26 27 27 28
 32 32 33 33 36 36 38 41 42 43 43 45 48

Now put into stem and leaf

This column is first part of the number

0	8	8	9
1	1	2	3 4 4 8 9
2	0	3	5 6 7 7 8
3	2	2	3 3 6 6 8
4	1	2	3 3 5 8

Each entry is the number of sweets in a packet. This one has 0 | 9 or 9 sweets

The Key tells you how to read the diagram

Key 4 | 1 stands for 41 letters

0	8	8	9
1	1	2	3 4 4 8 9
2	0	3	5 6 7 7 8
3	2	2	3 3 6 6 8
4	1	2	3 3 5 8

(2)

TOTAL FOR PAPER: 100 MARKS
END