

1 Work out 76×24

[3 marks]

Answer _____

2 (a) Work out $1.86 \div 6$

[1 mark]

Answer _____

2 (b) Work out 0.4×0.2

[1 mark]

Answer _____

3

Rulers
85p each

Pens
£3.50 each

Jenny buys 5 rulers and 2 pens.

She works out how much she should pay.

$$\begin{aligned}5 \times 85\text{p} &= \text{£}4.25 \\2 \times \text{£}3.50 &= \text{£}6.10 \\ \text{Total} &= \text{£}10.35\end{aligned}$$

Jenny's total is wrong.

What mistake has she made?

Include the correct total in your answer.

[2 marks]

Mistake made _____

Correct total £ _____

4 Here are three calculations, A, B and C.

A

$$100 \times 20\,000$$

B

$$1 \text{ million} \div 2$$

C

$$4 \times 100\,000$$

Put the calculations in order.

Start with the calculation that has the smallest answer.

You **must** show the answer to each calculation.

[3 marks]

Smallest _____

Largest _____

- 5** Simplify $8a - 3a + a$
Circle your answer.

[1 mark]

$4a$

$6a$

$5 + a$

$8a - 3a^2$

6

A shop has this offer.

£5 reduction if you spend more than £100
or
£10 reduction if you spend more than £150
or
£20 reduction if you spend more than £200

At the shop, dresses cost £42 each.

Amira buys 3 dresses.

Bobbi buys 5 dresses.

How much **more** than Amira does Bobbi pay?**[3 marks]**

Answer £ _____

- 7 The cost of a taxi journey is
£3 plus £2 per mile.

Circle the cost of a journey of 6 miles.

[1 mark]

£5

£12

£15

£30

8

$$c = 250 - 16^2$$

$$d = \frac{18 \times 14}{-28}$$

Work out the value of $c \times d$

[2 marks]

Answer _____

- 9 Match each expression in Column P with the equivalent expression in Column Q.
One has been done for you.

[3 marks]

Column P

Column Q

$$a^2 \times a$$

$$2a \times 3$$

$$12a^2 \div 2$$

$$10 \times \frac{1}{2}a^2$$

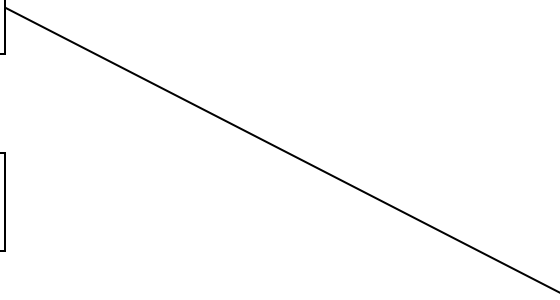
$$6a$$

$$5a$$

$$a^3$$

$$5a^2$$

$$6a^2$$



10 Circle the expression that can be written as $3cd$

[1 mark]

$$3 + c + d$$

$$c + c + c + d$$

$$c \times c \times c \times d$$

$$3 \times c \times d$$

11 (a) Simplify $5x^2 - x^2$

[1 mark]

Answer

- 12** At a school there are six lessons in a day.
In total, the six lessons last for five hours.

- 12 (a)** Assume that each lesson lasts the same amount of time.
How many minutes long is the final lesson?

[2 marks]

Answer _____ minutes

- 12 (b)** In fact, the first lesson of the day lasts longer than the other lessons.
The other lessons last the same amount of time.

What does this tell you about the length of the final lesson?

Tick **one** box.

[1 mark]

☐

It is shorter than the answer to part (a)

☐

It is the same as the answer to part (a)

☐

It is longer than the answer to part (a)

- 13** A bottle contains 1.5 litres of water.
650 millilitres of the water is poured into a jug.
How much water is left in the bottle?
State the units of your answer.
- [3 marks]**

Answer _____

14 Circle the answer to 0.02×100

[1 mark]

0.2

2

20

200

15 Circle the expression that is equal to $x + x + x - x + x$

[1 mark]

x

$2x$

$3x$

$4x$

16 Work out $(-8) \times 5$

[1 mark]

Answer _____

17 Here is a calculation.

$$31 \times 84 = 2604$$

You can use the calculation to help answer the following questions.

17 (a) Work out $2604 \div 84$

[1 mark]

Answer _____

17 (b) Work out 3.1×8.4

[1 mark]

Answer _____

17 (c) Work out 31×85

[2 marks]

Answer _____

18 Complete the bank statement.

[3 marks]

Date	Description	Credit (£)	Debit (£)	Balance (£)
01/05/2020	Starting balance			670.43
08/05/2020	Salary	2156.75		_____
11/05/2020	Water bill		48.97	_____
18/05/2020	Mortgage payment		_____	1642.49

19

Point A is 217 metres **above** sea level.
Point B is 145 metres **lower** than point A.
Point C is 59 metres **below** sea level.
How much **higher** is point B than point C?

[3 marks]



Answer _____ metres

20

School A has 72 tutor groups.

Each group has 28 students.

School B has 16 tutor groups.

Each group has 18 students.

Show that $\frac{\text{number of students at school A}}{\text{number of students at school B}}$ is a whole number.

[2 marks]

21 (a) Circle the answer to $150 \div 5$

[1 mark]

3

30

300

3000

21 (b) Circle the answer to $5 - 7$

[1 mark]

-12

-2

2

12

21 (c) Circle the answer to -3×3

[1 mark]

-9

-6

6

9

22 (a) Work out $60 \div 2 + 4$

[2 marks]

Answer _____

- 23** How many hours are there in 5 days?
Circle your answer.

[1 mark]

35

120

150

300

24 The masses of some puppies were recorded.

The smallest mass was 7 kilograms 200 grams.

The range of the masses was 650 grams.

What was the **largest** mass?

Give your answer in kilograms and grams.

[2 marks]

Answer _____ kilograms _____ grams

- 25** Show that 2125 can be written as
a cube number **multiplied** by a prime number between 10 and 20 **[2 marks]**

26 (a) Work out $(-4) \times (-3)$

[1 mark]

Answer _____

26 (b) Work out $6 \times (-5)$

[1 mark]

Answer _____

27

Match each expression on the left with the simplified expression on the right.
One has been done for you.

[4 marks]

$3a + 4a$	$12a$
$14a - 2a$	$7a$
$3a \times 3a$	$3a$
$6 \times 3a$	$18a$
$12a \div 4$	$9a^2$
	$6a$

28 (a) The cost of a TV streaming service is
£6 per month for the first 4 months
then
£11 per month for the rest of the year.

Work out the **total** cost for the year.

[2 marks]

Answer £ _____

28 (b) A TV series has ten episodes.
Nine episodes are each 50 minutes long.
One episode is 1 hour 42 minutes long.

Work out the **total** length of the series.
Give your answer in hours and minutes.

[3 marks]

Answer _____ hours _____ minutes

29 Three oranges have masses of 60g, 70g and 85g

Show that their **total** mass is between $\frac{1}{5}$ and $\frac{1}{4}$ of a kilogram.

[3 marks]

30 200 students were each asked about the monthly cost of their phone contract.
Here are the results.

	Less than £25	£25 or over
School students	40	90
College students	32	38

30 (a) How many **more** school students than college students were asked? **[2 marks]**

Answer _____

31 Here is a calculation.

$$428 \times 30 = 12\,840$$

Use the calculation to help answer the following questions.

31 (a) Write down the answer to $12\,840 \div 428$

[1 mark]

Answer _____

31 (b) Circle the answer to 214×30

[1 mark]

1284

3210

6420

25 680

- 32 (a) Write a number in the box to make the calculation correct.

[1 mark]

$$16 \div \boxed{} = 0.016$$

- 32 (b) Write a number in the box to make the calculation correct.

[1 mark]

$$18.4 + 3.9 + \boxed{} = 27$$

- 32 (c) Write a fraction in the box to make the calculation correct.

[1 mark]

$$\frac{1}{2} \times \boxed{} = \frac{1}{8}$$

- 32 (d) Write the **same** number in both boxes to make the calculation correct.

[1 mark]

$$\boxed{} \times \boxed{} = 361$$

- 33** To travel to a festival, a group of people will hire a minibus.
This formula has all costs in £

$$\text{Cost per person} = \frac{165 + \text{cost of the minibus}}{\text{number of people in the group}}$$

- 33 (a)** With 12 people in the group, the cost of the minibus will be £567
Work out the cost per person.

[2 marks]

Answer £ _____

- 33 (b)** With 15 people in the group, they will hire a different minibus.
The cost per person will be £50
Work out the cost of this minibus.

[3 marks]

Answer £ _____

34 (a)

When 5 is added to a negative number, the answer can be **positive**

Give **one** example to show that this is correct.

[1 mark]

34 (b)

When 5 is added to a negative number, the answer can be **negative**

Give **one** example to show that this is correct.

[1 mark]

34 (c)

When a number is doubled, the answer is always greater than the original number

Give **one** example to show that this is **not** correct.

[1 mark]

35 (a) Work out $280 \div 7$

[1 mark]

Answer _____

35 (b) Work out $1062 - 438$

[2 marks]

Answer _____

36 Here is a multiplication table.

×	61	63	65	67
61	3721	3843	3965	4087
63	3843	3969	4095	4221
65	3965	4095	4225	4355
67	4087	4221	4355	4489

Use the table to answer the following questions.

36 (a) Work out $3843 \div 63$ [1 mark]

Answer _____

36 (b) Work out 6.1×6.7 [1 mark]

Answer _____

36 (c) Work out 63×66 [2 marks]

Answer _____

37 c and d are positive numbers.

c is even.

d is odd.

Tick a box for each expression.

[3 marks]

	Even	Odd	Cannot tell
$c + d$	☐	☐	☐
$4c$	☐	☐	☐
$\frac{c}{2}$	☐	☐	☐

38 (a) One lettuce costs £1.29

How much do **seven** of these lettuces cost?

[1 mark]

Answer £ _____

38 (b) Five cucumbers cost £6.40 in total.

How much do **two** of these cucumbers cost?

[1 mark]

Answer £ _____