FEBRUARY ... A LITTLE BIT OF MATHS EVERY DAY

JustMaths

1

How long will it take to do 20 miles travelling at 30 miles per hour?

30miles = 1hr
10miles = 20mins
20miles = 40mins

2

Work out the value of $(6 \times 10^8) + (4 \times 10^7)$

6×10^8
0.4×10^8
6.4×10^8

3

Solve

$11 - 4p = 6p - 3$
$14 = 10p$
$p = 1.4$

4

A cube has a side length of 3cm.

Calculate its surface area

$9 \times 6 = 54cm^2$

5

Simplify fully

$$\frac{m^2 \times m^6}{m^3}$$

m^5

6 **7**

Emma, Hannah and Julia share £54.

Hannah gets three times as much money as Emma.

Julia gets twice as much money as Hannah.

How much money does Julia get?

E = 1E
H = 3E
J = 6E

54 ÷ 10 = 5.40

E = 5.40
H = 16.20
J = 32.40

8

A 4 pint bottle of milk costs £1.18. A 6 pint bottle of milk costs £1.74.

Which bottle of milk is the best value for money?

9

Without a calculator, work out:

157 x 54

8478

10

Find the Lowest Common Multiple (LCM) of 32 and 48

96

11

What is the 7th prime number?

2 3 5 7 11 13 17

17

12

Evaluate:

$3^0 \times 3^3$

$1 \times 27 = 27$

13 **14**

A netball team played six games.

The mean score for the six games is 14.5 87

The team played one more game.

The mean score for all seven games is 16 112

Work out the number of points the team scored in the seventh game.

25

15

Simplify

$5a - 3(2a + 6)$

$5a - 6a - 18$

$-a - 18$

16

The length of the rectangle is 9cm. The perimeter of the rectangle is 31 cm.

What is the width of the rectangle?

6.5cm

17

Calculate:

$$3\frac{1}{8} \times \frac{2}{5}$$

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

18 **19**

There are 60 litres of water in a barrel. 60000ml

The water flows out of the barrel at a rate of 250 millilitres per second.

1 litre = 1000 millilitres.

Work out the time it takes for the barrel to empty completely.

240seconds = 4minutes

20

Put in size order (smallest to largest):

4730 4.73×10^3 (3)
0.0473 47.3×10^{-3} (4)
47300 473×10^2 (5)
0.00473 (1)

21

A square has a perimeter of 28cm. side = 7cm

What is its area?

$49cm^2$

22

Expand & simplify

$(3x - 1)(x + 5)$

$3x^2 + 15x - x - 5$

$3x^2 + 14x - 5$

23

Lois and Robert share a sum of money in the ratio 2 : 3

What fraction of the money does Robert receive?

3/5

24

Calculate:

$$1\frac{2}{5} + \frac{3}{4}$$

$\frac{43}{20}$ $2\frac{3}{20}$

25

Factorise fully

$18ab + 27ab^2$

$9ab(2 + 3b)$

26

If I invest £4500 at a compound interest rate of 4.5% how much will I have after 2 years?

£4914.11

27 **28**

Ed bought 2 tins of paint and 3 brushes at a total cost of £15.50

Amir bought 1 tin of paint and 1 brush at a total cost of £6.

Calculate the price of a single tin of paint and the price of one brush.

1 brush = 3.50
paint = 2.50

29

Find two prime numbers that have a sum of 30

13, 17

If its not a leap year ... the 29th is a bonus!

REMEMBER: The best way to revise maths is to "do Maths"!