

1

Circle the value of 5^3

[1 mark]

8

15

25

125

2 Write $27 \times (3^2)^7$ as a single power of 3

[3 marks]

Answer _____

3

Work out

cube root of 512 : reciprocal of 0.4

Give your answer in the form $n : 1$

[3 marks]

Answer _____ :

4The square root of x is 4Circle the value of x^2 **[1 mark]**

256

2

16

8

5 (a) Work out $\frac{3^{12}}{3^7}$

Give your answer as a whole number.

[2 marks]

Answer _____

5 (b) Simplify $8 \times 2^6 \times 2^4$

Give your answer as a power of 2

[2 marks]

Answer _____

6 (a) Calculate $2^7 \times 5^2$

[1 mark]

Answer _____

6 (b) Calculate $\sqrt[4]{20\,736}$

[1 mark]

Answer _____

7 (a) Work out $-8)^2$

[1 mark]

Answer _____

7 (b) Work out 10^3

[1 mark]

Answer _____

8

$$2^a \times 3 \times 5^2 = 600$$

Work out the value of a .

You **must** show your working.

[3 marks]

$a =$ _____

9

Circle the value of $3^2 + 4^2$

[1 mark]

14

17

25

49

10 (a) k is a whole number between 40 and 50

The cube root of k is 3, to the nearest whole number.

Work out the **largest** possible value of k .

[2 marks]

Answer _____

10 (b) Fay tries to solve $x^2 = 100$

She says,

“The only possible value of x is 10”

Give a reason why she is **not** correct.

[1 mark]

- 11 (a)** Work out $2.8^4 + \sqrt{158.76}$
Give your answer as a decimal.

[2 marks]

Answer _____

12 (a) Write down **one** cube number between 100 and 300

[1 mark]

Answer _____

13 (a) Write down the value of 3^2

[1 mark]

Answer _____

13 (b) Write down the value of $\sqrt{144}$

[1 mark]

Answer _____

13 (c) Work out the value of 2^4

[1 mark]

Answer _____

Turn over for the next question

14 Calculate $\sqrt{625} + 7^3$ **[2 marks]**

Answer
