

Growth and Decay Topic Test 3

1 Write $5 \times 5 \times 5 \times 5 \times 5 \times 5 \times 5 \times 5$ in index form [1 mark]

Answer _____

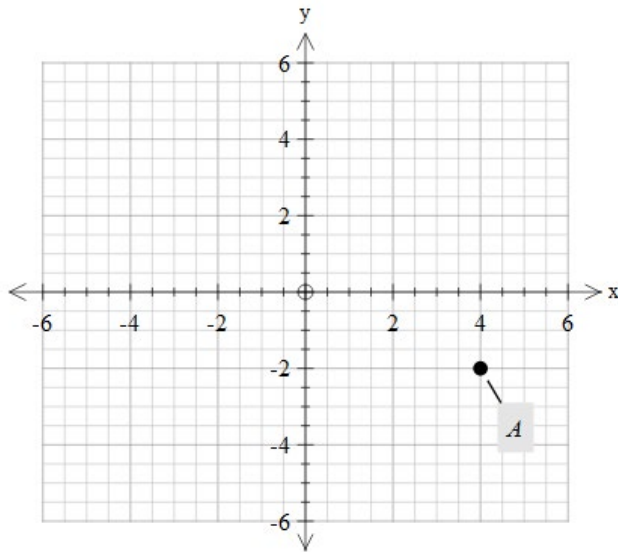
2 Write down the value of 4^3 [1 mark]

Answer _____

3 Put the following in order starting with the smallest
 3^4 5^3 2^6 6^2
You **must** show your working. [3 marks]

Answer _____

4



4(a) Write down the coordinates of point A [1 mark]

Answer _____

4(b) On the diagram plot the point with coordinates (-3, 5). [1 mark]

5 Work out 24% of £280 [2 marks]

Answer £ _____

6 A jumper is priced at £36.
It is reduced by 20% in the sale.

Work out the sale price. [3 marks]

Answer £ _____

7 Write down the value for x in $2^x = 32$

[1 mark]

Answer _____

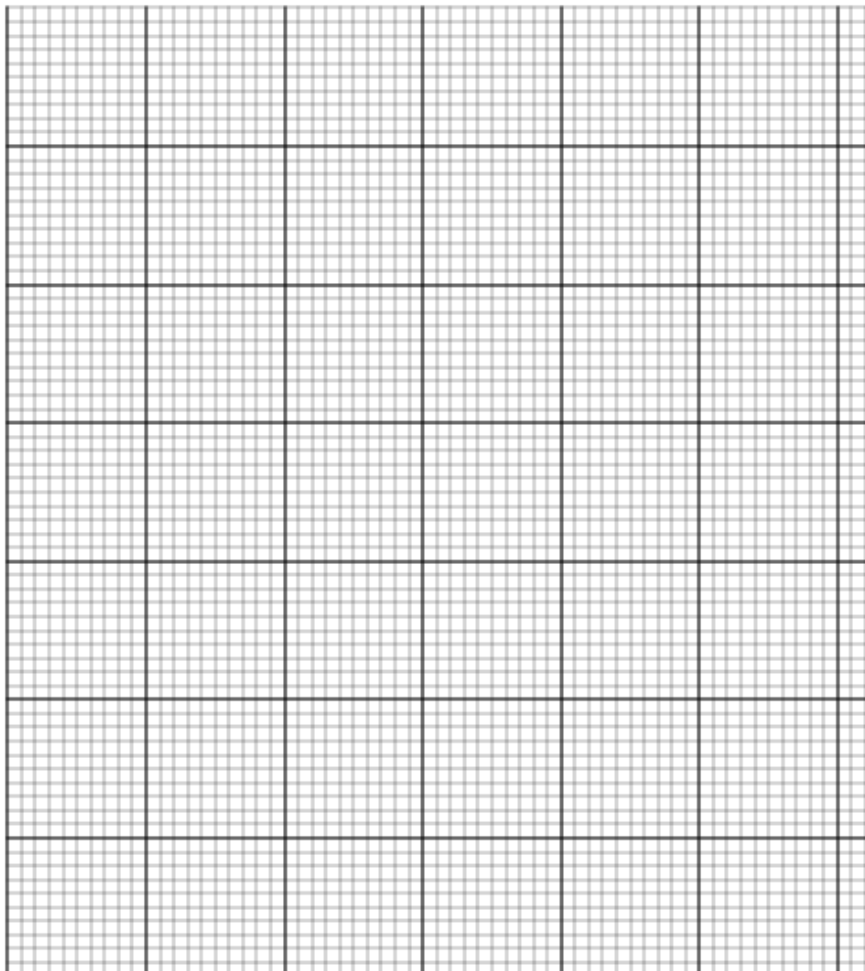
8(a) Complete the table of values for $y = 4^x$

[2 marks]

x	0	1	2	3	4
y	1	4			256

8(b) Draw the graph of $y = 4^x$ for values of x from 0 to 4.

[3 marks]



9 Solve the equation $3^{x-2} = 27$ **[2 marks]**

Answer _____

10 Leroy invested £5000 for 8 years at 3% compound interest.
How much interest did he earn?
Give your answer to the nearest penny. **[3 marks]**

Answer £ _____

11 A car cost £12 495 when it was new.
It depreciates in value by 12% per annum.
Which of the following shows its value after 5 years?
Circle the correct answer. **[1 mark]**

12 495 x 0.12⁵ 12 495 x 0.88⁵ 12 495 x 1.12⁵ 12 495 x 12⁵

12 Kay wants to invest £4 500 for 10 years.
What is the lowest rate of compound interest (to the nearest whole number) she will need in
for the investment to reach at least £6 000? **[2 marks]**

Answer _____

END OF QUESTIONS