

Maths



## Crack the Code with Factors, Multiples, Square Numbers and Cube Numbers

Which number?	Notes/Number	Letter
This number is a multiple of seven and two and is a factor of 28.	14	N
This number is a square number, a multiple of three and one more than a cube number.	9	I
This number is a prime number and a factor of 36.	3	С
When this number is squared, the answer is the largest square number in the list above.	5	E
This prime number is > 19 and < 29.	23	w
This number is a multiple of five and three.	15	0
This multiple of nine is in between two prime numbers.	18	R
This number is the difference between $5^2$ and $6^2$ .	11	к

## Using and Recognising Square and Cube Numbers

## A. Complete the table.

1 <sup>2</sup>	1 × 1	1
2 <sup>2</sup>	2 × 2	4
3 <sup>2</sup>	3 × 3	9
4 <sup>2</sup>	4× 4	16
5 <sup>2</sup>	5 × 5	25
6 <sup>2</sup>	6 × 6	36
7²	7 × 7	49
8 <sup>2</sup>	8 × 8	64
9²	9 × 9	81
10 <sup>2</sup>	10 × 10	100

B. Complete the table.

1 <sup>3</sup>	1 × 1 × 1	1
2 <sup>3</sup>	2 × 2 × 2	8
3 <sup>3</sup>	3 × 3 × 3	27
4 <sup>3</sup>	4 × 4 × 4	64
5 <sup>3</sup>	5 × 5 × 5	125
6 <sup>3</sup>	6 × 6× 6	216
7 <sup>3</sup>	7 × 7 × 7	343
8 <sup>3</sup>	8 × 8 × 8	512
9 <sup>3</sup>	9 × 9 × 9	729
10 <sup>3</sup>	10 × 10 × 10	1000

C. Calculate the missing numbers.

a) 7 <sup>2</sup> + 4 <sup>3</sup> = <b>113</b>	b) 8 <sup>2</sup> + 10 <sup>2</sup> = <b>164</b>	c) 5 <sup>3</sup> - 5 <sup>2</sup> = <b>100</b>
d) 5 <sup>2</sup> + <b>8<sup>2</sup></b> = 89	e) <b>9<sup>2</sup></b> - 8 <sup>2</sup> = 17	f) 3 <sup>2</sup> × 2 <sup>3</sup> = <b>72</b>
g) 3 <sup>2</sup> + <b>4<sup>2</sup></b> = 5 <sup>2</sup>	h) 6 <sup>3</sup> ÷ 2 <sup>2</sup> = <b>54</b>	i) 13 <sup>2</sup> = <b>169</b>
j) 10 <sup>3</sup> - 2 <sup>2</sup> = <b>996</b>	k) 100 <sup>2</sup> = <b>10 000</b>	l) <b>12</b> <sup>2</sup> = 144

## English The Highwayman by Alfred Noyes

Answers

Metaphors:

- The wind was a torrent of darkness among the gusty trees.
- The moon was a ghostly galleon tossed upon cloudy seas.
- The road was a ribbon of moonlight over the purple moor.
- His eyes were hollows of madness.
- The road was a gypsy's ribbon.

Similes:

- Dumb as a dog.
- His hair like mouldy hay.
- His face burnt like a brand!
- The hours crawled by like years.
- Her face was like a light.
- Like a madman.
- Down like a dog.

Foundation Subject –

What did you find? Which materials did you choose?