

# Using and Recognising Square and Cube Numbers

## Answers

A. Complete the table.

$1^2$	$1 \times 1$	1
$2^2$	$2 \times 2$	4
$3^2$	$3 \times 3$	9
$4^2$	$4 \times 4$	16
$5^2$	$5 \times 5$	25
$6^2$	$6 \times 6$	36
$7^2$	$7 \times 7$	49
$8^2$	$8 \times 8$	64
$9^2$	$9 \times 9$	81
$10^2$	$10 \times 10$	100

B. Complete the table.

$1^3$	$1 \times 1 \times 1$	1
$2^3$	$2 \times 2 \times 2$	8
$3^3$	$3 \times 3 \times 3$	27
$4^3$	$4 \times 4 \times 4$	64
$5^3$	$5 \times 5 \times 5$	125
$6^3$	$6 \times 6 \times 6$	216
$7^3$	$7 \times 7 \times 7$	343
$8^3$	$8 \times 8 \times 8$	512
$9^3$	$9 \times 9 \times 9$	729
$10^3$	$10 \times 10 \times 10$	1000

C. Calculate the missing numbers.

a) $7^2 + 4^3 = 113$	b) $8^2 + 10^2 = 164$	c) $5^3 - 5^2 = 100$
d) $5^2 + 8^2 = 89$	e) $9^2 - 8^2 = 17$	f) $3^2 \times 2^3 = 72$
g) $3^2 + 4^2 = 5^2$	h) $6^3 \div 2^2 = 54$	i) $13^2 = 169$
j) $10^3 - 2^2 = 996$	k) $100^2 = 10\ 000$	l) $12^2 = 144$

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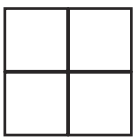
Recognise and use square numbers and cube numbers, and the notation for squared ( $^2$ ) and cubed ( $^3$ ).

## Square Numbers

The product of a number multiplied by itself.

Can be illustrated as a square, e.g

$$2^2 = 2 \text{ squared} = 2 \times 2 = 4$$



A. Complete the table.

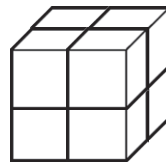
$1^2$	$1 \times 1$	1
$2^2$		4
$3^2$	$3 \times 3$	
	$4 \times 4$	16
$5^2$		
		36
	$7 \times 7$	
$8^2$		
$10^2$		100

## Cube Numbers

The product of multiplying a digit by itself three times.

Can be illustrated as a cube, e.g.

$$2^3 = 2 \text{ cubed} = 2 \times 2 \times 2 = 8$$



B. Complete the table.

$1^3$	$1 \times 1 \times 1$	1
$2^3$	$2 \times 2 \times 2$	
$3^3$		27
	$4 \times 4 \times 4$	64
$5^3$	$5 \times 5 \times 5$	
$6^3$	$6 \times 6 \times 6$	
		343
$8^3$		512
	$9 \times 9 \times 9$	729
$10^3$		

C. Calculate the missing numbers.

a) $7^2 + 4^3 =$	b) $8^2 + 10^2 =$	c) $5^3 - 5^2 =$
d) $5^2 + \underline{\quad} = 89$	e) $\underline{\quad} - 8^2 = 17$	f) $3^2 \times 2^3 =$
g) $3^2 + \underline{\quad} = 5^2$	h) $6^3 \div 2^2 =$	i) $13^2 =$
j) $10^3 - 2^2 =$	k) $100^2 =$	l) $\underline{\quad}^2 = 144$