# Squaring Numbers

Videos 226 and 227 on Corbettmaths

Examples

Click here

Scan here

Workout

Question 1: Write each of the following as multiplications
e.g. $5^2 = 5 \times 5$

(a) $3^2$ (b) $1^2$ (c) $6^2$ (d) $9^2$ (e) $10^2$ (f) $4^2$ (g) $12^2$

Question 2: Write each of the following using the "squared" symbol
e.g. $8 \times 8 = 8^2$

(a) $2 \times 2$ (b) $5 \times 5$ (c) $11 \times 11$ (d) $35 \times 35$ (e) $20 \times 20$ (f) $13 \times 13$ (g) $7 \times 7$

Question 3: Work out each of the following

(a) $5^2$ (b) $3^2$ (c) $8^2$ (d) $9^2$ (e) $2^2$ (f) $10^2$ (g) $7^2$

(h) $1^2$ (i) $4^2$ (j) $6^2$ (k) $11^2$ (l) $20^2$ (m) $12^2$ (n) $50^2$

Question 4: Write down the first 10 square numbers

Question 5: Work out each of the following.
You may not use a calculator

(a) $14^2$ (b) $18^2$ (c) $21^2$ (d) $27^2$ (e) $35^2$ (f) $19^2$ (g) $28^2$

(h) $43^2$ (i) $56^2$ (j) $81^2$ (k) $92^2$ (l) $99^2$ (m) $120^2$ (n) $163^2$

Question 6: Work out each of the following.
You may use a calculator

(a) $73^2$ (b) $59^2$ (c) $208^2$ (d) $199^2$ (e) $6.5^2$ (f) $8.2^2$ (g) $7.8^2$

(h) $0.7^2$ (i) $27.6^2$ (j) $0.45^2$ (k) $19.11^2$ (l) $800^2$ (m) $1000^2$ (n) $1111^2$

# Squaring Numbers

Videos 226 and 227 on Corbettmaths

## Apply

Question 1: Write down the square numbers from the list below

91 101 10 2 4 81 200 16 90 121

Question 2: 100 can be written as the sum of two different square numbers.
Which two square numbers?

Question 3: 85 can be written as the sum of two square numbers in two different ways.
Show how this can be done.

Question 4: Tom says "if you square a number the answer is always bigger."
Show Tom is incorrect using two different examples.

Question 5: James is adding up consecutive triangular numbers
(a) Write down the first 10 triangular numbers (you may research this)
(b) Add together the first and second triangular numbers.
(c) Add together the second and third triangular numbers.
(d) Add together the third and fourth triangular numbers.
(e) What do you notice about your answers?
(f) Will this always happen? Can you explain why?

Question 6: Rebecca says "when you add three consecutive square numbers, the answer is always odd."
Is Rebecca right? Explain your answer.

Question 7: Duncan has answered the questions below.
Can you spot any mistakes?

Write down the value of

(a) $3^2$

3 x 2 = 6

6 ..... (1)

(b) seven squared

7 x 2 = 14

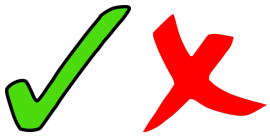
14 ..... (1)

(c) $8^2$

8 x 2 = 16

16 ..... (1)

## Answers



Click here

Scan here