

## Squares, Cubes and Roots

Write down the value of:

- (a)  $5^2$                       (b)  $2^3$   
(c)  $3^2$                         (d)  $6^3$   
(e)  $1^2$                         (f)  $7^3$   
(g)  $9^2$                         (h)  $3^3$   
(i)  $8^2$                         (j)  $4^3$

- (a) 25                      (b) 8  
(c) 9                        (d) 216  
(e) 1                        (f) 343  
(g) 81                      (h) 27  
(i) 64                        (j) 64

Write down the value of:

- (a)  $\sqrt{9}$                       (b)  $\sqrt[3]{125}$   
(c)  $\sqrt{49}$                     (d)  $\sqrt[3]{512}$   
(e)  $\sqrt{25}$                     (f)  $\sqrt[3]{8}$   
(g)  $\sqrt{81}$                     (h)  $\sqrt[3]{64}$   
(i)  $\sqrt{121}$                     (j)  $\sqrt[3]{729}$

- (a) 3                        (b) 5  
(c) 7                        (d) 8  
(e) 5                        (f) 2  
(g) 9                        (h) 4  
(i) 11                        (j) 9

- (a) When you subtract one square number from another the answer is 35. What are the two square numbers?  
(b) Write down a number that you can cube to give an answer between 400 and 600.  
(c) Find two square numbers that have exactly one cube number between them.  
(d) Work out the square root of 64, then cube it.  
(e) The square of a positive number is twice as big as the cube of that number. What is the number?

- (a) 1 and 36  
(b) 8  
(c) 2 and 3, 5 and 6, 11 and 12 or 14 and 15  
(d) 512  
(e)  $\frac{1}{2}$

Complete the pattern:

- 1  
 $1 + 3 =$   
 $1 + 3 + 5 =$   
 $1 + 3 + 5 + 7 =$   
Continue the pattern. What do you notice?

- $1 + 3 = 4$   
 $1 + 3 + 5 = 9$   
 $1 + 3 + 5 + 7 = 16$   
 $1 + 3 + 5 + 7 + 9 = 25$   
Adding the next odd number generates the next square number