

Formulae and Equations

Solving Equations



a
$$r = 3$$

b
$$r = 8$$

$$c r = 24$$

2 If $A = \pi ab$ find the value of A (correct to two decimal places) when:

a
$$a = 10, b = 5$$

b
$$a = 22, b = 15$$

c
$$a = 8, b = 3$$

3 If I = Prn find the value of I (correct to one decimal place) when:

a
$$P = 10, r = 0.2, n = 3$$

b
$$P = 45, r = 0.1, n = 4$$

$$P = 84, r = 0.3, n = 2$$

4 If $A = P(1+r)^n$ find the value of A (correct to two decimal places) when:

a
$$P = 9, r = 0.05, n = 5$$

b
$$P = 6, r = 0.04, n = 3$$

$$P = 8, r = 0.03, n = 8$$

5 Find the value of S (correct to one decimal place) in the formula $S = V_0 - Dn$, if:

a
$$V_0 = 25$$
, $D = 2.5$ and $n = 2$

b
$$V_0 = 17.5, D = 5 \text{ and } n = 3$$

6 Use the formula $V = \frac{4}{3}\pi r^3$ to find the value of V (correct to the nearest whole number) when:

a
$$r = 6$$

b
$$r = 5.2$$

$$c r = 7.1$$

7 If $z = \frac{x - \overline{x}}{s}$ find the value of z when:

a
$$x = 12, \overline{x} = 8$$
 and $s = 2$

b
$$x = 24, \overline{x} = 4.5 \text{ and } s = 4$$

8 The cost of hiring a rotary hoe is given by the rule C = 25t + 900 where C is the total cost in dollars and t is the number of hours for which the rotary hoe is hired. Find the cost of hiring a rotary hoe for:

a 6 hours

b 8.5 hours

c 24 hours