Solving Equations

# Formulae and Equations 

1 If $A=4 \pi r^{2}$ find the value of $A$ (correct to one decimal place) when:
a $r=3$
b $r=8$
c $r=24$

2 If $A=\pi a b$ 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 $I=\operatorname{Prn}$ find the value of $I$ (correct to one decimal place) when:
a $P=10, r=0.2, n=3$
b $P=45, r=0.1, n=4$
c $P=84, r=0.3, n=2$

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 $P=6, r=0.04, n=3$
c $P=8, r=0.03, n=8$

5 Find the value of $S$ (correct to one decimal place) in the formula $S=V_{0}-D n$, if:
a $V_{0}=25, D=2.5$ and $n=2$
b $V_{0}=17.5, D=5$ 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 $z=\frac{x-\bar{x}}{s}$ find the value of $z$ when:
a $x=12, \bar{x}=8$ and $s=2$
b $\quad x=24, \bar{x}=4.5$ and $s=4$

8 The cost of hiring a rotary hoe is given by the rule $C=25 t+900$ 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

