Solving Formulas

Use the formula to find the value of the variable indicated. When needed round answers to hundredths.

$C = 2\pi r$ (circumference of a circle)

1) Find C, when $\pi = 3.14$ and $r = 9$ in

3) Find C, when $\pi = 3.14$ and $r = 4$ ft

5) Find π, when $C = 44$ cm and $r = 7$ cm

$A = \pi r^2$ (area of a circle)

2) Find A, when $\pi = 3.14$ and $r = 3$ ft

4) Find A, when $\pi = 3.14$ and $r = 5$ in

6) Find π, when $A = 154$ m and $r = 7$ m

$P = 2l + 2w$ (perimeter of rectangle)

7) Find P, when $l = 4.1$ in and $w = 5.9$ in

9) Find P, when $l = 3.8$ ft and $w = 6.7$ ft

11) Find w, when $P = 56$ m and $l = 15$ m

$A = lw$ (area of rectangle)

8) Find A, when $l = 6$ cm and $w = 12$ cm

10) Find A, when $l = 2.4$ m and $w = 7.2$ m

12) Find l, when $A = 172$ ft^2 and $w = 4$ ft

$A = \frac{1}{2}h(b+B)$ (area of trapezoid)

13) Find A, when $h = 2$ in, $b = 3$ in, $B = 5$ in

15) Find A, when $h = 2.3$ cm, $b = 4.7$ cm, $B = 11.2$ cm

17) Find B, when $A = 81$ in^2, $b = 14$ in, $h = 3$ in

$A = \frac{1}{2}bh$ (area of triangle)

14) Find A, when $b = 8$ m and $h = 5$ m

16) Find b, when $A = 154$ m^2 and $h = 7$ m

18) Find h, when $A = 172$ ft^2 and $b = 4$ ft

Solve each literal equation (formula) for the specified variable.

19) $d = rt$ for r

21) $C = \frac{5}{9}(F - 32)$ for F

23) $I = Prt$ for t

25) $a(b+c) = bc$ for c

20) $mx - y = -b$ for y

22) $V = lwh$ for w

24) $A = \frac{1}{2}h(b+B)$ for B

26) $Ax + By = C$ for x

Answer Key

1) 56.52 in

2) 28.26 ft^2

3) 25.12 ft

4) 78.5 in^2

5) 3.14

6) 3.14

7) 20 in

8) 72 cm^2

9) 21 ft

10) 17.28 m^2

11) 13 m

12) 43 ft

13) 8 in^2

14) 20 m^2

15) 18.29 cm^2

16) 44 m

17) 40 in

18) 86 ft

19) $r = \frac{d}{t}$

20) $y = mx + b$

21) $F = \frac{9}{5}C + 32$

22) $w = \frac{V}{lh}$

23) $t = \frac{I}{\Pr}$

24) $B = \frac{2A - bh}{h}$

25) $c = \frac{ab}{b - a}$

26) $x = \frac{C - By}{A}$