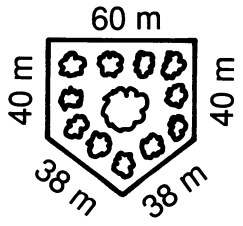
When Is a Chair Like the Fabric Used to Make It?

Write the correct formula to use in solving each problem. Find your answer in the Code Key and notice the letter next to it. Write this letter in the box containing the number of the problem.

4	9	7	5	3	10	1	12	6	2	8	11

1 A botanical garden was designed in the shape of a pentagon. How many meters of fencing are needed to go around the garden?



2 How many square feet of wallpaper are needed to cover a wall 8 ft high by 15 ft wide?

3 The diameter of a circular running track is 140 yd. How far would you run in one lap?

4 How much weather stripping is needed to go around a square window measuring 42 in. on a side?

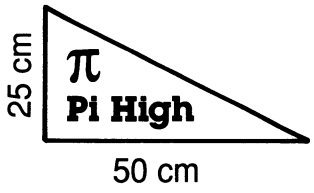
5 A dangerous criminal has escaped from prison. The police believe he could not have traveled more than 10 mi in any direction from the prison. How many square miles must be searched?

6 How much lace edging is needed to go around a rectangular tablecloth measuring 52 in. by 70 in.?

7 How many tiles are needed to cover a square patio measuring 18 ft on a side if each tile covers 1 sq ft?

8 The orbit of the earth around the sun is approximately a circle with a radius of 93,000,000 mi. How far do we travel in one orbit around the sun?

9 How much felt is needed to make this banner?



10 If each bag of fertilizer covers 2,000 sq ft, how many bags are needed to fertilize a rectangular lawn measuring 100 ft by 160 ft?

11 A lighthouse beacon can be seen 24 mi in all directions. What is the area over which the beacon can be seen?

12 Popeye put colorful plastic tape around the edge of a triangular sail. The sail had sides of 10 ft, 15 ft, and 18 ft. How many feet of tape did he use?

Code Key

Perimeter/ Circumference

(S) P = sum of the lengths of the sides.

(A) $P = 2\ell + 2w$

(W) $P = 4s$

(I) $C = \pi d$ or $C = 2\pi r$

Area

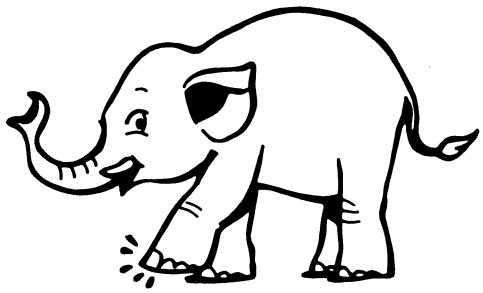
(T) $A = \ell w$

(E) $A = s^2$

(H) $A = \frac{1}{2}bh$

(N) $A = \pi r^2$

Why Did the Elephant Paint His Toenails Red, Green, Yellow, Blue, and Purple?



Find each answer in the appropriate set of boxes at the bottom of the page.
Write the letter of the exercise in the box containing the answer.

I. Find the length of one side (s) of each square.

(O) Area $25\ m^2$ — s = _____ m

(I) Area $64\ cm^2$ — s = _____ cm

(E) Area $400\ ft^2$ — s = _____ ft

II. Find the square root.

(S) $\sqrt{49}$ (L) $\sqrt{16}$ (I) $\sqrt{100}$ (O) $\sqrt{81}$

(E) $\sqrt{36}$ (D) $\sqrt{4}$ (H) $\sqrt{144}$ (N) $\sqrt{1}$

(C) $\sqrt{900}$ (H) $\sqrt{2{,}500}$ (U) $\sqrt{6{,}400}$ (D) $\sqrt{10{,}000}$

III. Simplify.

(E) 15^2 (H) 11^2 (A) 25^2

(Y) $\sqrt{225}$ (E) $\sqrt{121}$ (L) $\sqrt{625}$

(A) $\sqrt{16} + \sqrt{9}$ (E) $\sqrt{36} + \sqrt{64}$ (R) $\sqrt{25} - \sqrt{9}$

(N) $\sqrt{16 + 9}$ (T) $\sqrt{36 + 64}$ (J) $\sqrt{25 - 9}$

(L) $\sqrt{0.25}$ (B) $\sqrt{0.81}$ (J) $\sqrt{0.01}$

Answers for Part I and Part II

7	9	11	12	20	60	30	5	80	4	2	3	50	10	100	6	90	8	1

Answers for Part III

18	10	121	11	12	0.1	14	25	0.5	15	0.4	0.9	225	7	5	715	4	625	2