

A. A rectangular garden measures 12 meters wide and has a diagonal measuring 13 meters long. Find the perimeter of the rectangle.

C. A wire cable supports a utility pole. The cable is fastened to the ground at a point 7 meters from the base of the pole and makes an angle of  $57^\circ$  with the ground. To the nearest tenth, how tall is the pole?

B. The diagonal of a square measures 25 meters. What is the area of the square?

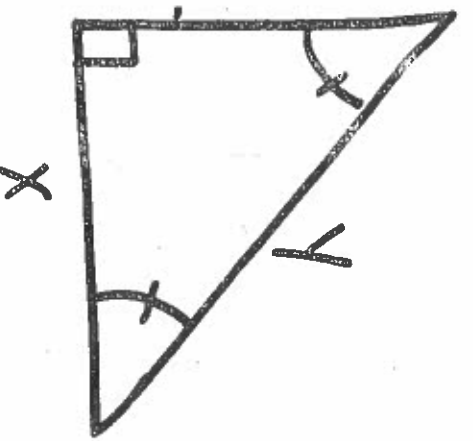
D. A ramp is 68 feet long and rises to a loading dock 7 feet above the ground level. To the nearest degree, find the angle the ramp makes with the ground.

E. A tree has cracked 7 feet from the ground and has fallen as if hinged. The top of the tree hit the ground 24 feet from the base. How tall was the tree before it fell over?

F. Simplify each radical. No decimal answers.

- $\sqrt{40}$
- $\sqrt{3} \cdot \sqrt{6}$
- $(2\sqrt{3})^2$
- $\sqrt{\frac{25}{49}}$

G. Solve for each missing part of the special triangle.



Orange Card Activity  
Ch. 8

Name \_\_\_\_\_

Date \_\_\_\_\_ Block \_\_\_\_\_

You must draw and label a picture for A-E,  
and show your work. Use special right short-cuts  
for G. No decimal answers for F.

(A)

(B)

(C)

(D)

(E)

F.

1.

\_\_\_\_\_

2.

\_\_\_\_\_

3.

\_\_\_\_\_

4.

\_\_\_\_\_

G.

X = \_\_\_\_\_

Y = \_\_\_\_\_

N = \_\_\_\_\_

P = \_\_\_\_\_