

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Indirect Measure and Similar Figures KEY

1. 6 ft

11.  $m = 12$  yd

2.  $b = 4$  m

12.  $c = 25$  in

3. yes

13. 48 ft

4. 15 ft

14.  $x = 4.5$  km

5.  $n = 45$  m

15.  $p = 102$  degrees

6. no

16. 7.5 ft

7. 26 ft

17. yes

8.  $w = 6$  in

18. 4 ft

9.  $a = 6$  in

19.  $k = 12$  in

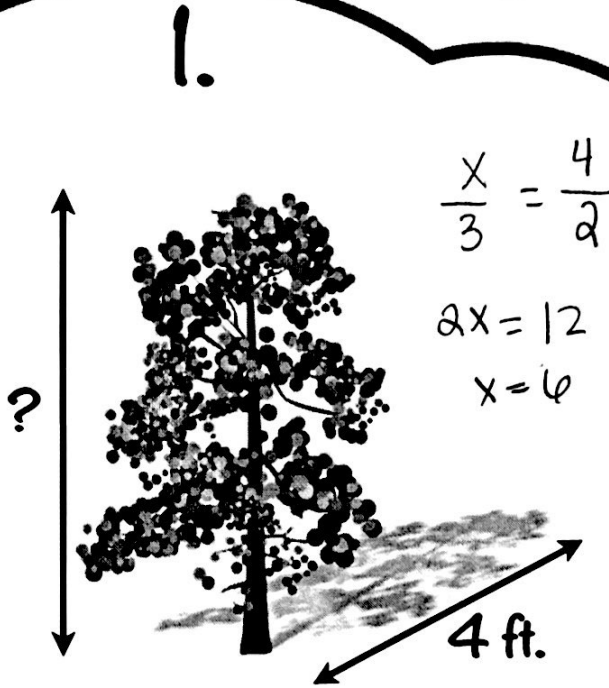
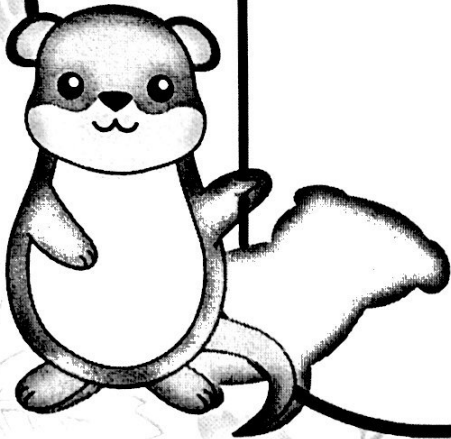
10. 5 ft

20. 37.5 ft

### Groundhog Stats

Height: 3 ft.

Shadow Length: 2 ft.



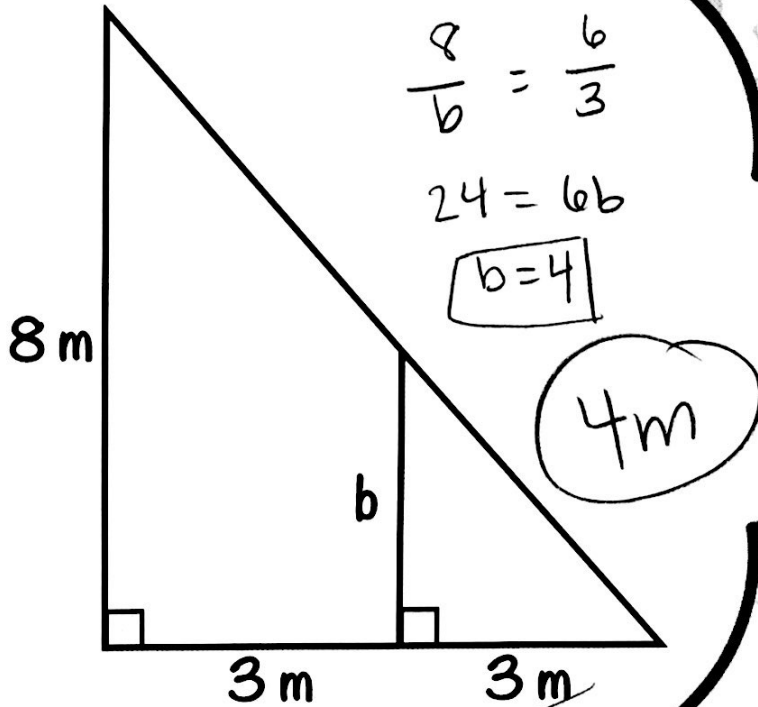
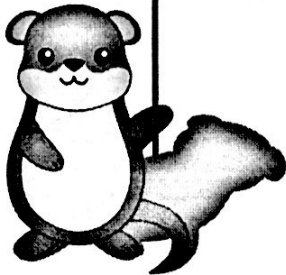
What is the height of the tree?

6 feet

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### 2.

$b = ?$

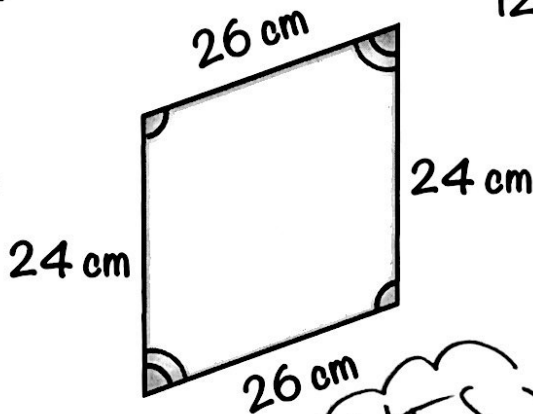
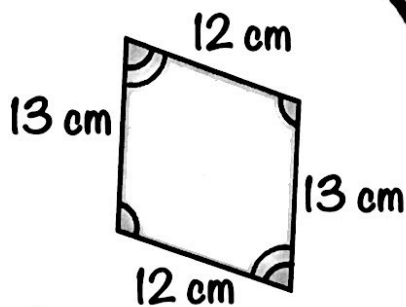
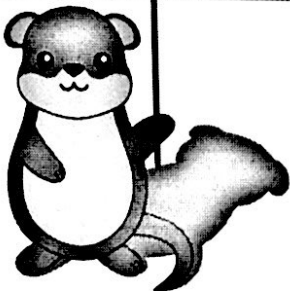


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3.

not oriented the same

Are the figures similar?



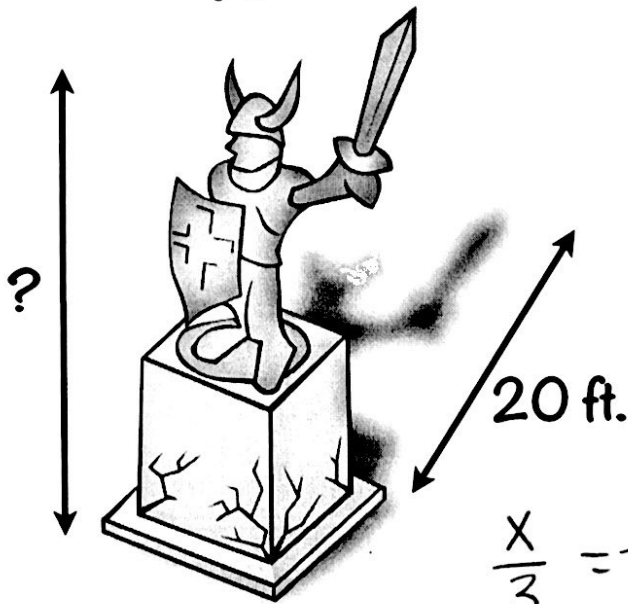
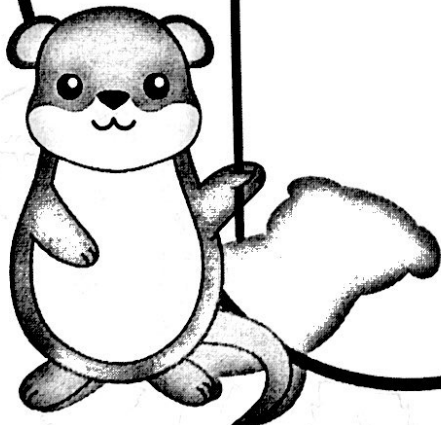
$$\frac{13}{26} = \frac{12}{24}$$

$$\frac{1}{2} = \frac{1}{2}$$

YES

4.

Groundhog Stats  
Height: 3 ft.  
Shadow Length: 4 ft.



What is the height of the statue?

15 ft

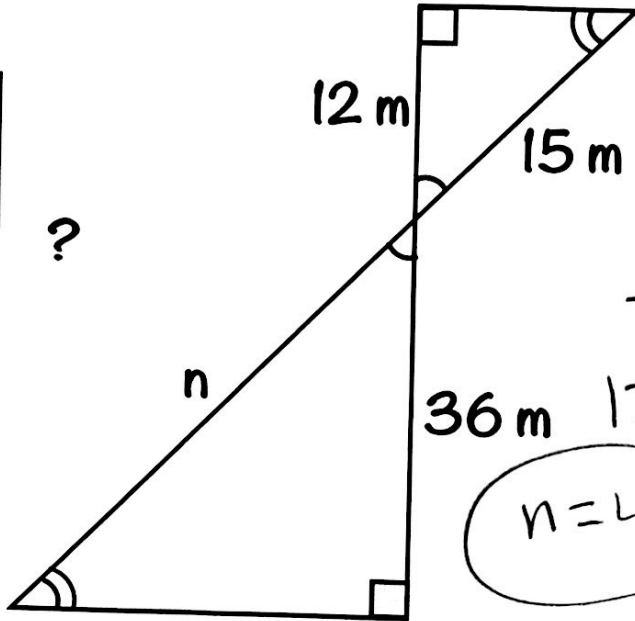
$$\frac{x}{3} = \frac{20}{4}$$

$$4x = 60$$

$$x = 15$$

5.

$n = ?$



$$\frac{n}{15} = \frac{36}{12}$$

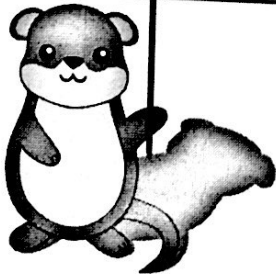
$$12n = 540$$

$$n = 45$$

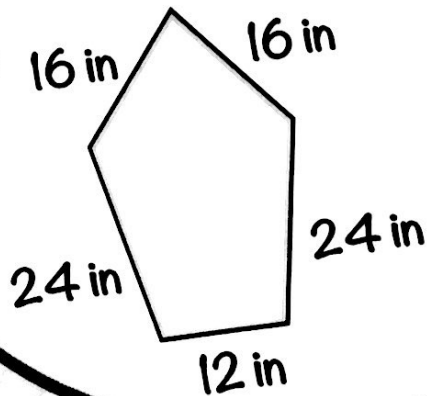
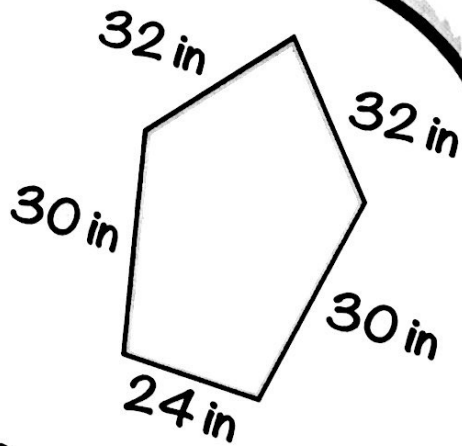
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6.

Are the figures similar?



NO



$$\frac{32}{16} = \frac{30}{24} = \frac{24}{12}$$

$$2 = \frac{5}{4} = 2$$

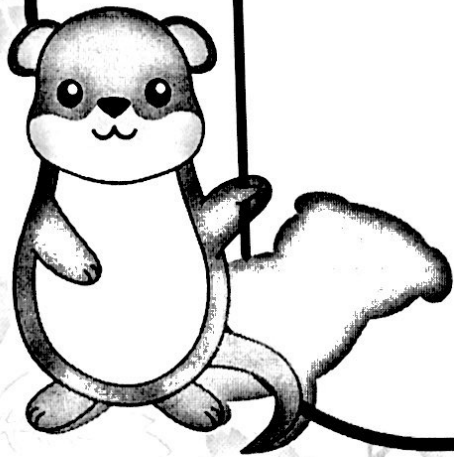
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7.

Groundhog Stats

Height: 2 ft

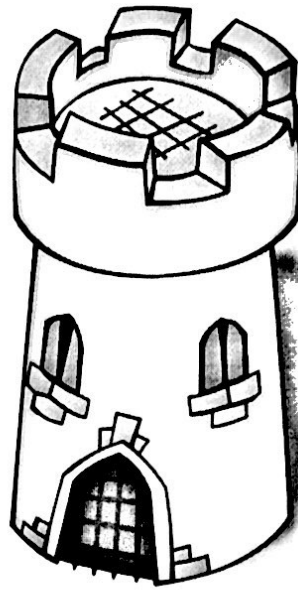
Shadow Length: 3 ft



$$\frac{x}{2} = \frac{39}{3}$$

$$3x = 78?$$

$$x = 26$$



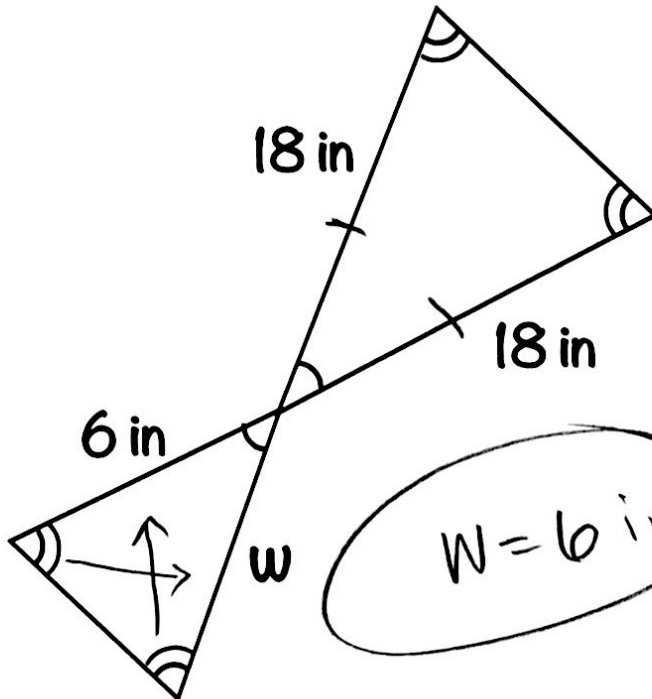
39 ft.

What is the height of the castle?

26 ft

8.

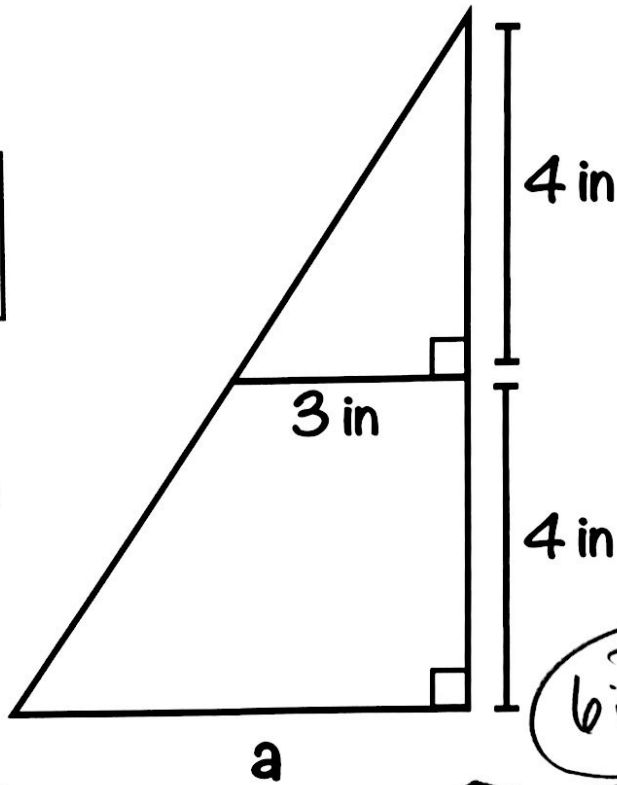
w = ?



w = 6 in

9.

a = ?



$$\frac{a}{3} = \frac{8}{4}$$

$$4a = 24$$

$$a = 6$$

6 in

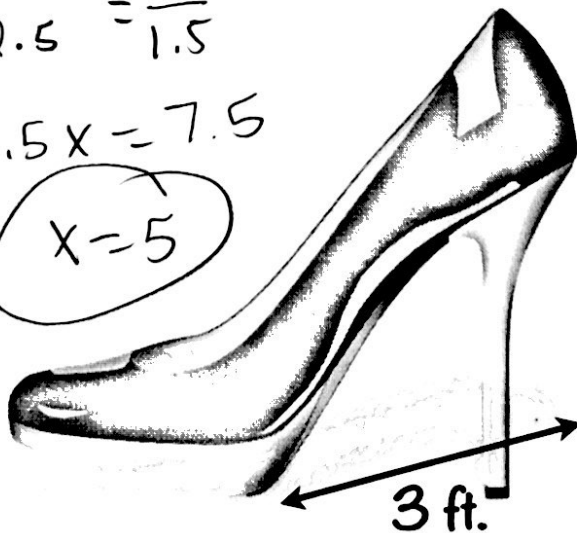
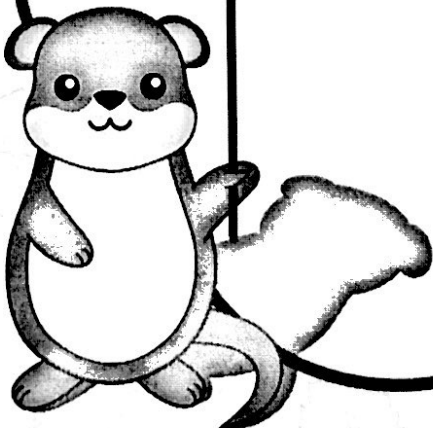
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$$\frac{x}{2.5} = \frac{3}{1.5}$$

$$1.5x = 7.5$$

$$x = 5$$

**Groundhog Stats**  
 Height: 2.5 ft  
 Shadow Length: 1.5 ft



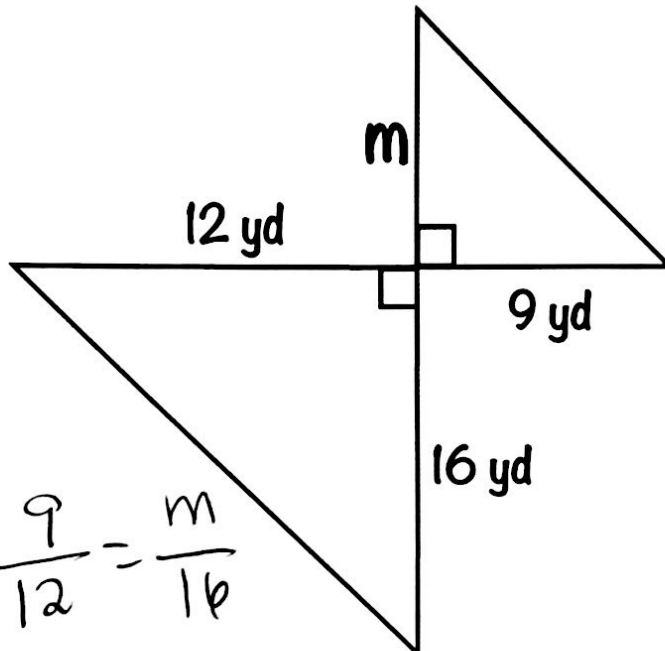
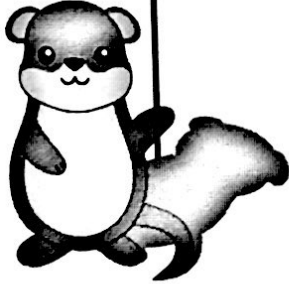
What is the height  
 of the giant shoe?

5 ft

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11.

$m = ?$



$$\frac{9}{12} = \frac{m}{16}$$

$$144 = 12m$$

$$m = 1249$$

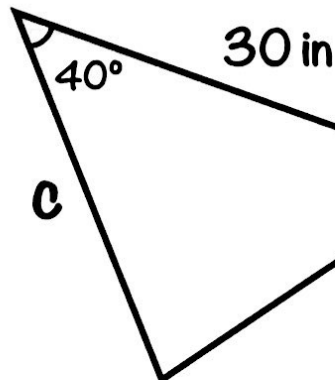
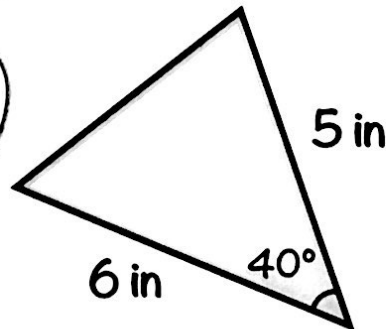
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12.

$c = ?$



25 in



$$\frac{6}{30} = \frac{5}{c}$$

$$6c = 150$$

$$c = 25$$

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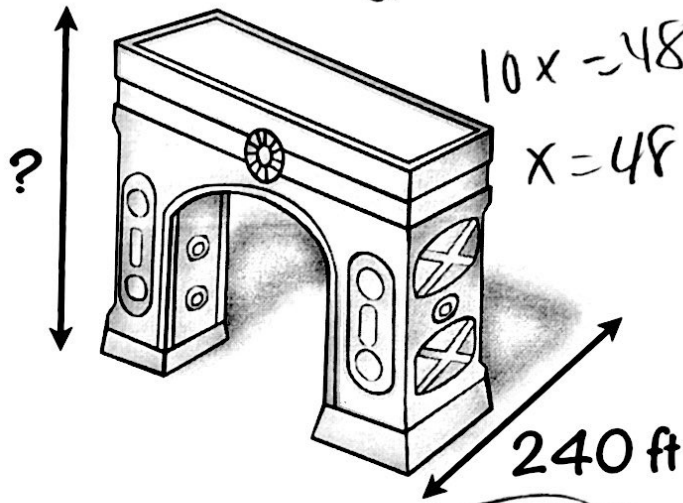
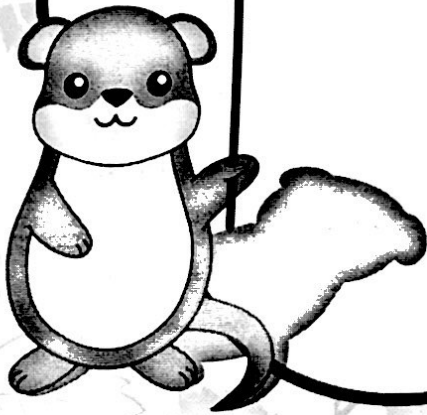
13.

$$\frac{x}{2} = \frac{240}{10}$$

$$10x = 480$$

$$x = 48$$

Groundhog Stats  
Height: 2 ft.  
Shadow Length: 10 ft.



What is the height of the structure?

48 ft

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14.

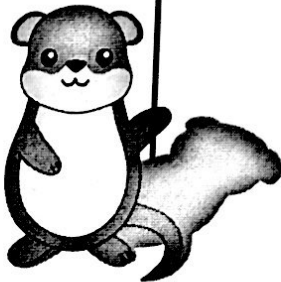
$$\frac{14}{7} = \frac{9}{x}$$

$$14x = 63$$

$$x = 4.5$$

14 km

x = ?



7 km



x

4.5 km



9 km

These figures are similar.

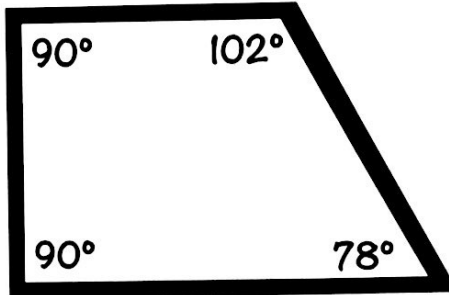
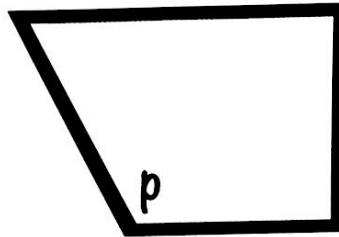
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15.

$p = ?$

$= 102^\circ$



These figures are similar.

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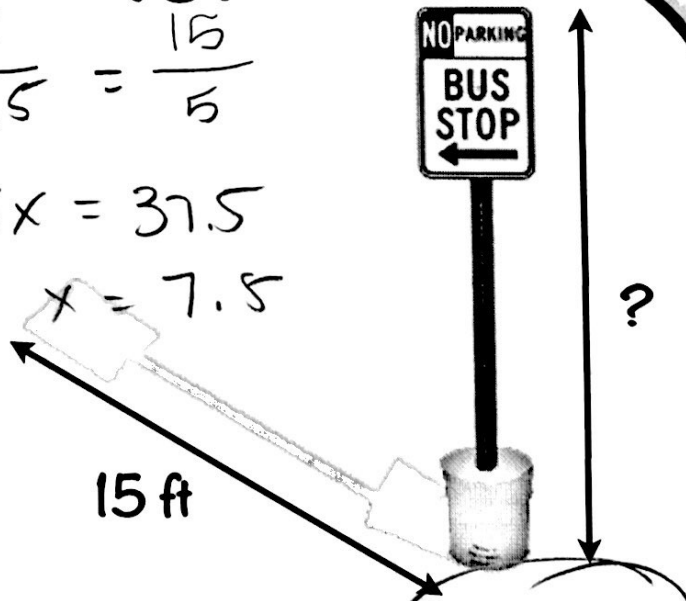
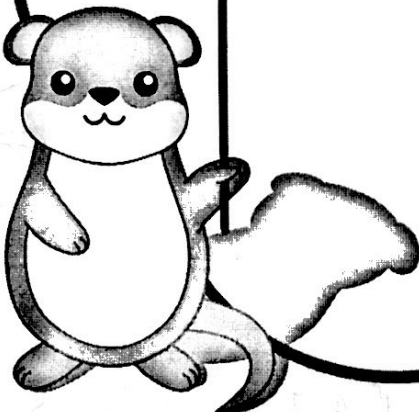
16.

$$\frac{x}{2.5} = \frac{15}{5}$$

$$5x = 37.5$$

$$x = 7.5$$

Groundhog Stats  
Height: 2.5 ft.  
Shadow Length: 5 ft.



What is the height of the sign?

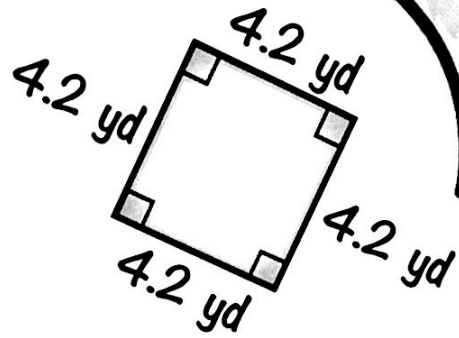
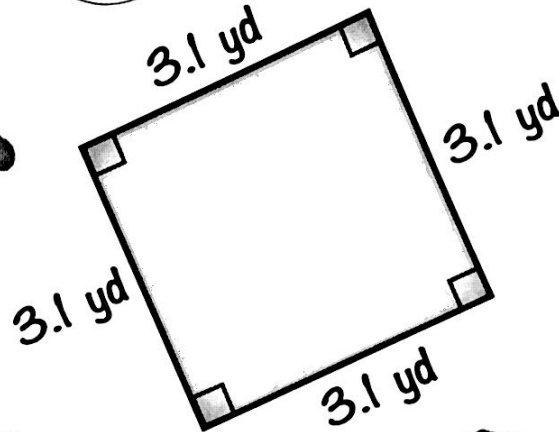
7.5 ft

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17.

Are the figures similar?

Yes!

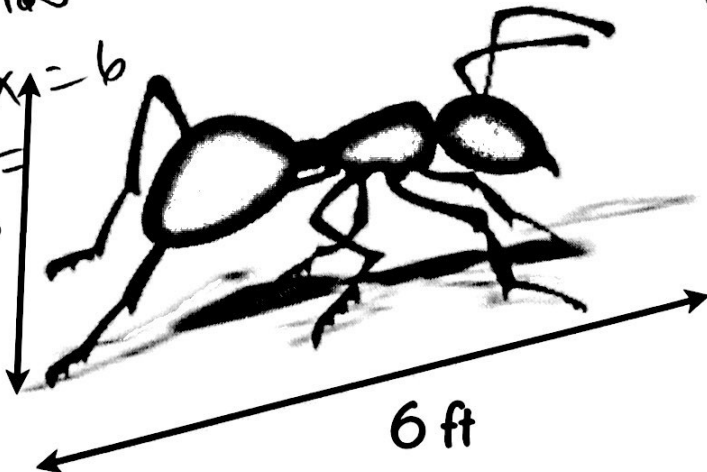
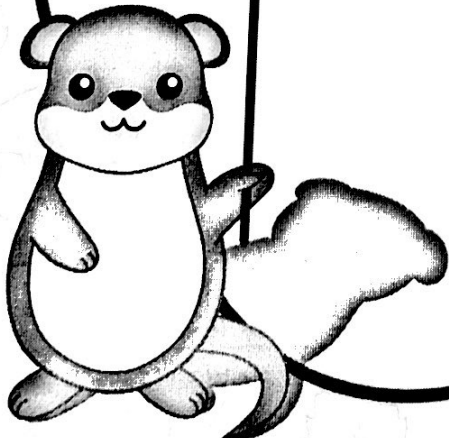


18.

$$\frac{x}{1} = \frac{6}{1.5}$$

$$1.5x = 6$$
$$x = ?$$

Groundhog Stats  
Height: 1 ft  
Shadow Length: 1.5 ft



What is the height of the enormous ant?

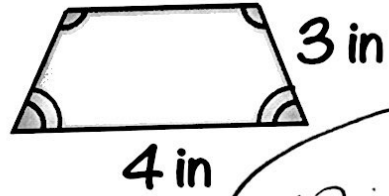
4ft

19.

$$\frac{3}{9} = \frac{4}{k}$$

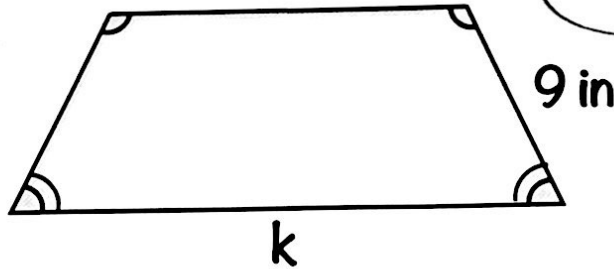
$$3k = 36$$

$$k = 12$$



12 inches

k = ?



20.

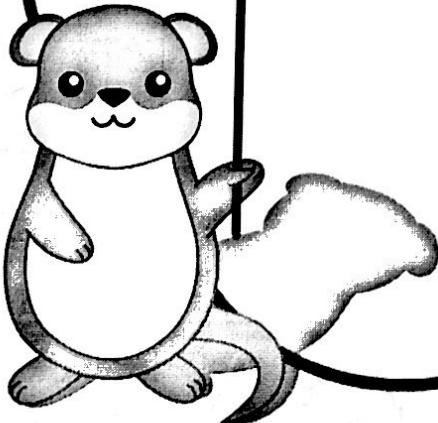
$$\frac{x}{2.5} = \frac{15}{1}$$

$$x = 37.5$$

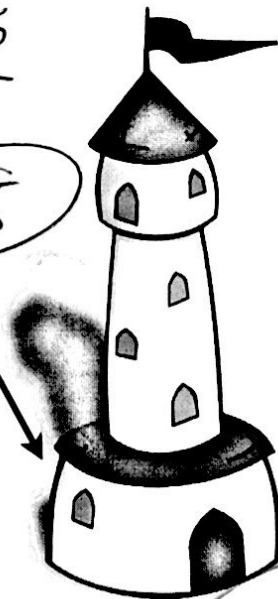
Groundhog Stats

Height: 2.5 ft

Shadow Length: 1 ft



15 ft



37.5 ft

What is the height of the tower?