Name_____ Period_____ Date_____

CHAPTER 6 PRACTICE TEST

Solve for the variable.

1. $3x = 12$

2. $7a = 42$

3. $8g = 32$

4. $\dfrac{x}{3} = \dfrac{5}{15}$

5. $\dfrac{10}{b} = \dfrac{20}{8}$

6. $\dfrac{2}{3} = \dfrac{10}{w}$

7. $\dfrac{1}{3} = \dfrac{7}{y}$

8. $35 = 7k$

9. $80 = 20x$

Use the following to solve problems 10-13.
For every 9 fish you have, you need 3 gallons of water.

10. How many fish can you have if you have a tank that holds 21 gallons?

11. How many gallons of water do you have for 1 fish?

12. If you want 18 fish, how many gallons of water do you need?

Use the following to solve problems 14-16.
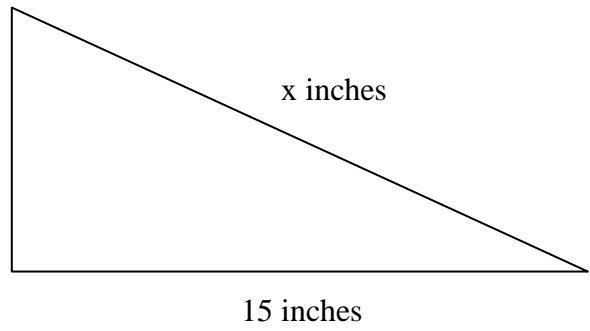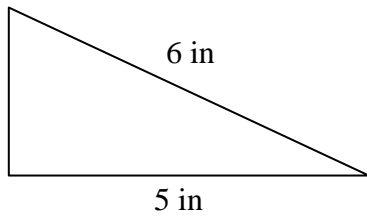15 cars enter a parking lot every 5 minutes.

14.

Cars	Minutes
	6
15	5
	4
	3
	2
	1

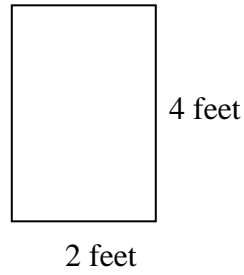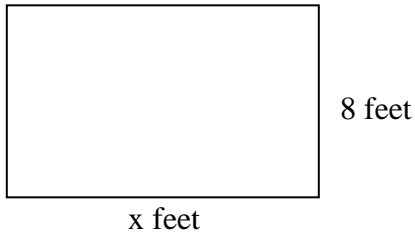15. How many cars enter the parking lot in 3 minutes?

16. How long does it take for 9 cars to enter the parking lot?

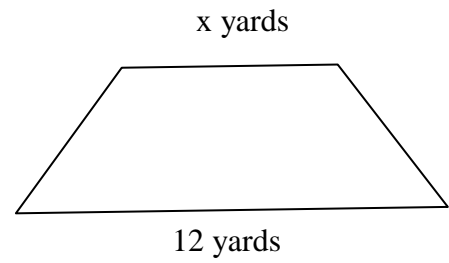**For problems 17-20, set up the proportion for each set of similar figures and solve for the missing side length.**
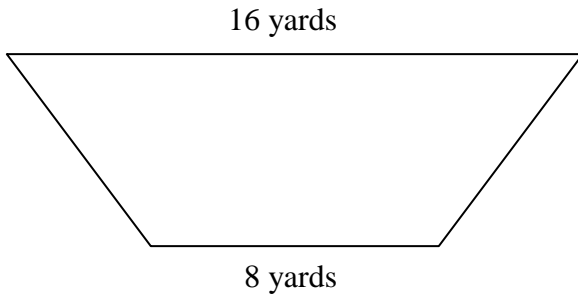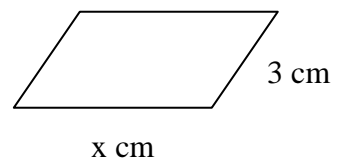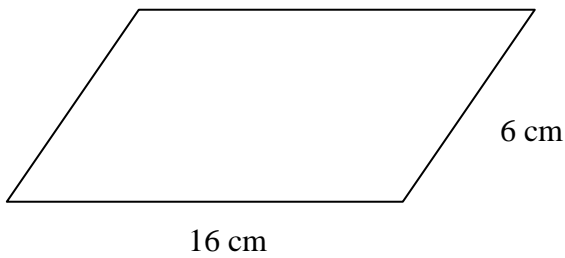
17.

6 in

5 in

x inches

15 inches

18.

8 feet

x feet

4 feet

2 feet

19.

16 yards

8 yards

x yards

12 yards

20.

6 cm

16 cm

3 cm

x cm

CHAPTER 6 PRACTICE TEST

Solve for the variable.

1. $3x = 12$

    4

2. $7a = 42$

    6

3. $8g = 32$

    4

4. $\dfrac{x}{3} = \dfrac{5}{15}$

    1

5. $\dfrac{10}{b} = \dfrac{20}{8}$

    4

6. $\dfrac{2}{3} = \dfrac{10}{w}$

    15

7. $\dfrac{1}{3} = \dfrac{7}{y}$

    21

8. $35 = 7k$

    5

9. $80 = 20x$

    4

Use the following to solve problems 10-13.
For every 9 fish you have, you need 3 gallons of water.

10. How many fish can you have if you have a tank that holds 21 gallons?   **73 fish**

11. How many gallons of water do you have for 1 fish?   **1/3 gallon**

12. If you want 18 fish, how many gallons of water do you need?   **6 gallons**

Use the following to solve problems 14-16.
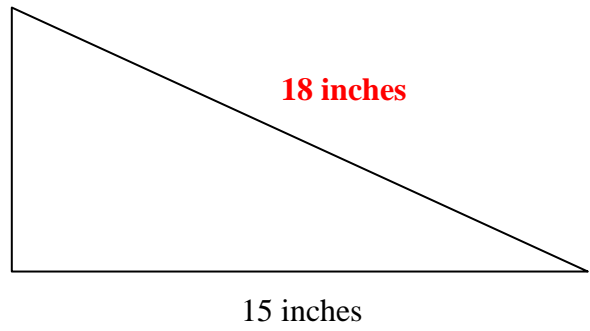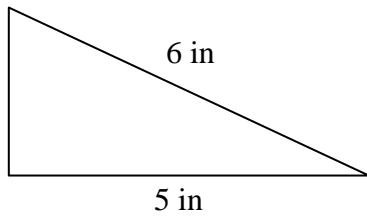15 cars enter a parking lot every 5 minutes.

14.

Cars	Minutes
18	6
15	5
12	4
9	3
6	2
3	1

18. How many cars enter the parking lot in 3 minutes?   **9 cars**
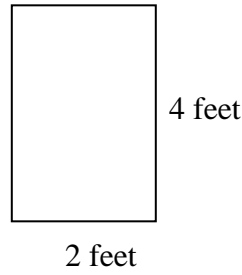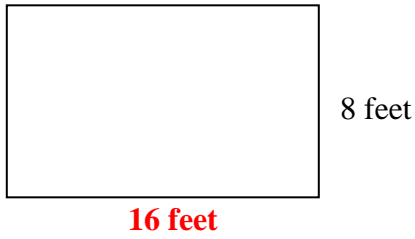
19. How long does it take for 9 cars to enter the parking lot?   **3 minutes**

For problems 17-20, set up the proportion for each set of similar figures and solve for the missing side length.
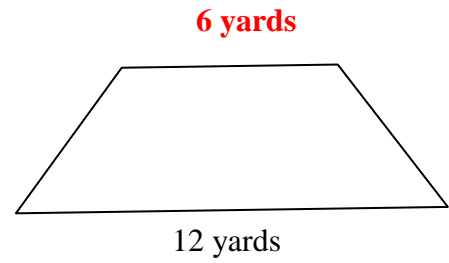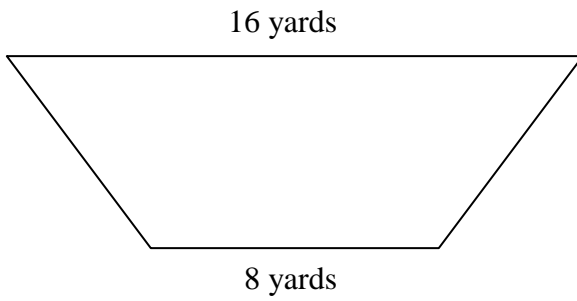
20.

6 in

5 in

18 inches

15 inches

18.

8 feet

16 feet

4 feet

2 feet

16 yards

19.

8 yards

6 yards

12 yards

20.

6 cm

16 cm

3 cm

8 cm