

## Perimeter and Area Review

1. If the base of a parallelogram is 33 cm and the area is  $330 \text{ cm}^2$ , what is the height of the parallelogram?
2. If the base of a rectangle is 32.9 cm and the area is  $378.35 \text{ cm}^2$ , what is the perimeter of the rectangle?
3. Find the area of the parallelogram whose vertices are  $(-3, -6)$ ,  $(-6, -6)$ ,  $(-6, 0)$ , and  $(-3, 0)$ .
4. Find the area of the parallelogram whose vertices are  $(4, -3)$ ,  $(6, -8)$ ,  $(1, -8)$ , and  $(9, -3)$ .
5. If the height of a rectangle is  $5 \frac{3}{4}$  mm and the base is  $8 \frac{1}{6}$  mm, what is the area of the rectangle?
6. If the height of a rectangle is  $6 \frac{1}{5}$  cm and the area is  $46 \frac{1}{2} \text{ cm}^2$ , what is the length of the base of the rectangle?
7. The area of a rectangle is  $440 \text{ cm}^2$ . The height is four less than four times the base. What is the height?
8. The area of a rectangle is  $198 \text{ m}^2$ . The height is four less than two times the base. What is the perimeter?
9. What is the length of the base of a triangle with height 26.5 m and area  $99.375 \text{ m}^2$ ?
10. What is the height of a triangle with base 10 cm and area  $130 \text{ cm}^2$ ?

### Find the missing measurement of each trapezoid

11.

$$\text{height} = 7 \text{ cm}$$

$$b_1 = 26 \text{ cm}$$

$$b_2 = 29 \text{ cm}$$

$$\text{area} = \underline{\hspace{2cm}}$$

12.

13.

$$\text{height} = 6 \frac{1}{4} \text{ mm}$$

$$b_1 = 4 \frac{1}{3} \text{ mm}$$

$$b_2 = 5 \frac{3}{4} \text{ mm}$$

$$\text{area} = \underline{\hspace{2cm}}$$

$$\text{height} = 22 \text{ mm}$$

$$b_1 = \underline{\hspace{2cm}}$$

$$b_2 = 14 \text{ mm}$$

$$\text{area} = 352 \text{ mm}^2$$

14. Find the area of the triangle whose vertices are (-2, 5), (-2, 11), and (-9, 5).
15. Find the area of the parallelogram whose vertices are (-2, -2), (0, -6), (1, -2), and (3, -6).
16. Find the area of the rectangle whose vertices are (-9, -5), (-9, -1), (-0, -5), and (-0, -1).
17. Find the area of the trapezoid whose vertices are (7, -3), (11, 2), (2, -3), and (2, 2).
18. What is the area of a triangle with base 4 m and height 6 m?
19. What is the height of a triangle with base  $4 \frac{1}{3}$  mm and area  $18 \frac{5}{12}$  mm<sup>2</sup>?

**Find the area and circumference of each circle. State your answer in terms of  $\pi$  and also round your answer to the nearest tenth.**

20. radius = 20 cm

21. radius =  $\frac{8}{11}$  mm

22. diameter = 19.58 mm

**Find the radius of the circle. (use  $\pi = 3.14$ )**

23.  $A = 361 \pi \text{ m}^2$

24.  $C = 50 \pi \text{ cm}$

25.  $A = 784.86 \text{ m}^2$

26. If it takes one hundred ten gallons of paint to paint a center stripe around a circular track that has a radius of a third of a mile, then how much paint would it take to paint a center stripe around a circular track that had a radius of one-ninth of a mile?
27. Farmer Bob is considering buying a new field that is next to one he already owns. The field he is considering is a perfect square. The fence along each side of this square field is made of old logs and is half of a mile long. If he can walk at a rate of three miles per hour, how long will it take him to inspect the fence all the way around this field?
28. If a piece of paper is folded in half two times and the resulting folded paper is a square with an area of sixteen square centimeters, what were the dimensions (length and width) of the piece of paper before it was folded?

29. The more leaf area a plant has the more photosynthesis it can do to build sugar molecules out of carbon dioxide and water. If a leaf can photosynthesize at an arbitrary rate of say twelve units per minute per square centimeter of leaf area, how much leaf area does the plant have if its total rate of photosynthesis is 1608 units per minute?