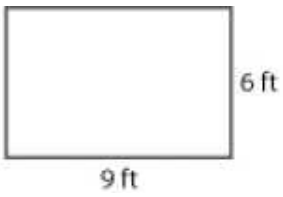
Print

Chapter 10 - Measurement: Perimeter, Area, and Volume - Mid-Chapter Quiz: Lessons 10-1 through 10-4

Find the perimeter of each figure.

1. 

$P = 2\ell + 2w$
$= 2 \times 9 + 2 \times 6$
$= 18 + 12$
$= 30$ ft

30 ft

2. 

$P = 2\ell + 2w$
$= 2 \times 3.4 + 2 \times 7.6$
$= 6.8 + 15.2$
$= 22$ cm

22 cm

3. **FIELDS** How many feet of fencing is needed to fence a rectangular field 126 feet by 84 feet?

$P = 2\ell + 2w$
$= 2 \times 126 + 2 \times 84$
$= 252 + 168$
$= 420$ ft

420 ft

Find the radius or diameter of each circle with the given dimensions.

4. $d = 7$ in.

$r = \frac{d}{2}$

$= \frac{7}{2}$

$= 3.5$ in.

$r = 3.5$ in.

5. $r = 32$ ft

$d = 2r$

$= 2 \times 32$

$= 64$ ft

$d = 64$ ft

6. $r = 16$ yd

$d = 2r$

$= 2 \times 16$

$= 32$ yd

$d = 32$ yd

7. $d = 18$ cm

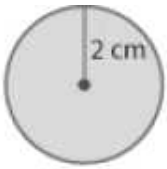
$r = \frac{d}{2}$

$= \frac{18}{2}$

$= 9$ cm

$r = 9$ cm

Estimate the circumference of each circle.

8. 

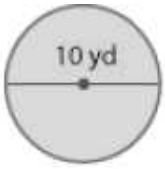
Sample answer:

$C = 2\pi r$

$\approx 2 \times 3 \times 2$

≈ 12 cm

Sample answer: $2 \times 2 \times 3 = 12$ cm

9. 

Sample answer:

$C = \pi d$

$\approx 3 \times 10$

≈ 30 yd

Sample answer: $3 \times 10 = 30$ yd

10. **POOLS** Find the circumference of a circular pool whose diameter is 3.7 feet. Round to the nearest tenth.

$C = \pi d$

$= \pi \times 3.7$

≈ 11.6 ft

11.6 ft

11. **MULTIPLE CHOICE** Ernesto knows the circumference of a DVD but would like to find the diameter. Which method can Ernesto use to find the diameter of the DVD?

A Multiply the circumference of the DVD by its radius.
B Divide the circumference of the DVD by π and then divide by 2.
C Divide the circumference of the DVD by π.
D Multiply the circumference of the DVD by 2.

$C = \pi d$

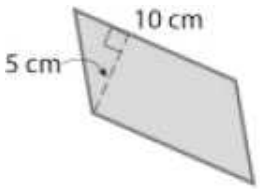
$\frac{C}{\pi} = d$

To find the diameter, Ernesto must divide the circumference by π. The answer is C.

C

Find the area of each parallelogram.

12.



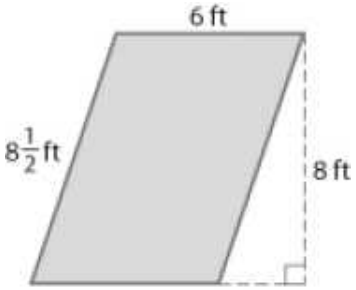
$A = bh$

$= 10 \times 5$

$= 50$ cm^2

50 cm^2

13.



$A = bh$

$= 6 \times 8$

$= 48 \text{ ft}^2$

48 ft^2

14. Find the area of a parallelogram with base $5\frac{1}{2}$ feet and height $7\frac{1}{2}$ feet.

$A = bh$

$= 5\frac{1}{2} \times 7\frac{1}{2}$

$= 39\frac{3}{8} \text{ ft}^2$

$39\frac{3}{8} \text{ ft}^2$

15. **MULTIPLE CHOICE** Which expression can be used to find the area of a triangle that has a height of 9 units and a base of n units?

F $9n$

G $\frac{9n}{2}$

H $\frac{9}{2}$

J $\frac{n}{2}$

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

$= \frac{1}{2} \times n \times 9$

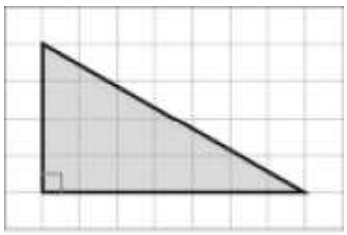
$= \frac{9n}{2}$

The answer is G.

G

Find the area of each triangle.

16.

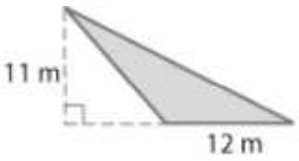


$b = 7$ units, $h = 4$ units.

$$A = \frac{1}{2}bh$$
$$= \frac{1}{2} \times 7 \times 4$$
$$= 14 \text{ units}^2$$

14 units^2

17.



$$A = \frac{1}{2}bh$$
$$= \frac{1}{2} \times 12 \times 11$$
$$= 66 \text{ m}^2$$

66 m^2

18. **PENNANTS** A pennant for a baseball team is a triangular flag with a base of 12 inches and a height of 30 inches. What is the area of the pennant?

$$A = \frac{1}{2}bh$$
$$= \frac{1}{2} \times 12 \times 30$$
$$= 180 \text{ in}^2$$

180 in^2