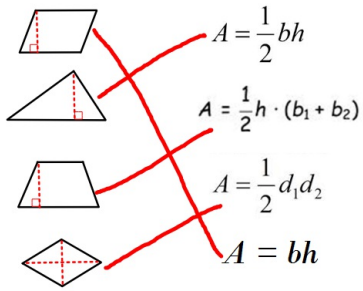## 11.1 – 11.2 Review

1. Match the picture with the correct formula that would be used to find the area.

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

$A = \dfrac{1}{2}h \cdot (b_1 + b_2)$

$A = \dfrac{1}{2}d_1 d_2$

$A = bh$

2. Find the area.

18 m
21 m
32 m

$A = \frac{1}{2}h(b_1 + b_2)$
$= \frac{1}{2}(21)(32 + 18)$
$= 10.5(50)$
$\boxed{A = 525\,m^2}$

3. Find the area.

10 m
6 m
7 m
6 m

$A = \frac{1}{2}d_1 d_2$
$= \frac{1}{2}(17)(12)$

4. Find x. Area = 177 m^2

x
13 m
11 m

$A = \frac{1}{2}h(b_1 + b_2)$
$177 = \frac{1}{2}(13)(x + 11)$
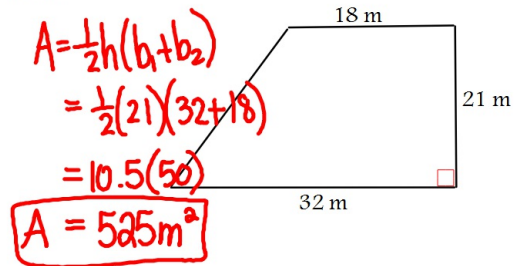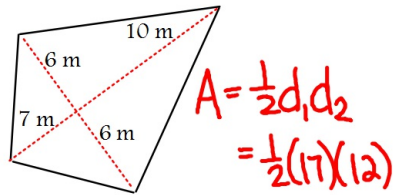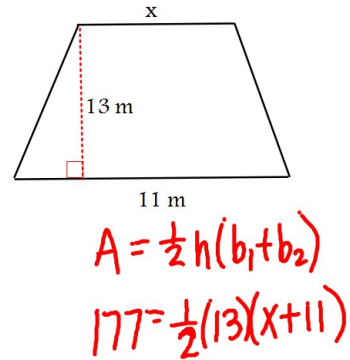
11.1 – 11.2 Review

Find the area of each figure.

1.

6 ft
8 ft

$A = \frac{1}{2}bh + bh$
$= \frac{1}{2}(8)(6) + 8(8)$
$= 24 + 64$
$= 88\,ft^2$

2.

6 m
4 m
14 m
10 m
12 m
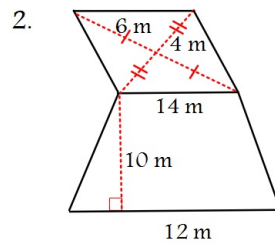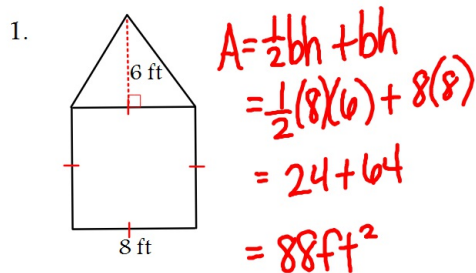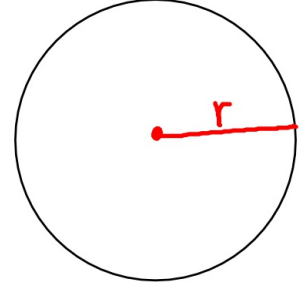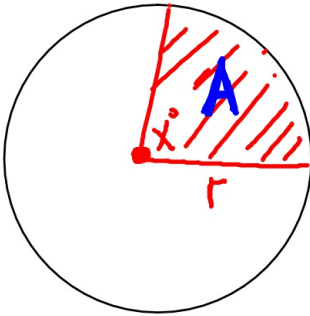
Find the area of the shaded region.

3.

5 in   3 in   7 in
9 in
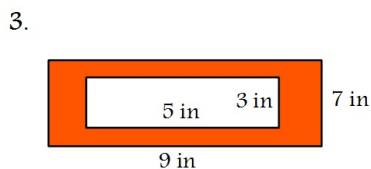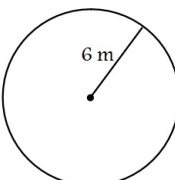
$A = bh_{big} - bh_{small}$
$= 9(7) - 5(3)$
$A = 48\,in^2$

4.

20 cm
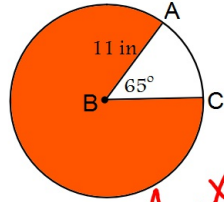10 cm
20 cm
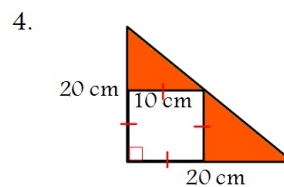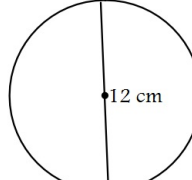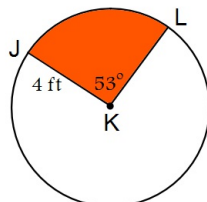
Area of a Circle is equal to __π__ times the square of the __radius__.

$$A = \pi r^2$$

Sector of a circle is a region of a __circle__ bounded by a __central__ angle and its intercepted __major__ or __minor__ arc.

Area of a Sector

$$A = \frac{x}{360} \cdot \pi r^2$$

Example 1: Find the area of each circle or shaded sector. Round to the nearest tenth if necessary.

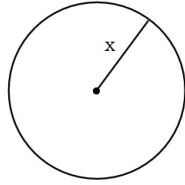1.

6 m

$$A = \pi r^2$$
$$= \pi (6)^2$$
$$A = 113.1 \, m^2$$

2.

12 cm

$$A = \pi r^2$$
$$= \pi (6)^2$$
$$A = 113.1 \, cm^2$$

3.

J L 4 ft 53° K

$$A = \frac{x}{360} \cdot \pi r^2$$
$$= \frac{53}{360} \cdot \pi (4)^2$$
$$A = 7.4 \, ft^2$$

4.

A 11 in 65° B C

$$A = \frac{x}{360} \cdot \pi r^2$$
$$= \frac{295}{360} \cdot \pi (11)^2$$
$$A = 311.5 \, in^2$$

Example 2: Find x.

1. Area = 95 cm^2

x

$A = \pi r^2$

$\dfrac{95}{\pi} = \dfrac{\pi x^2}{\pi}$

$\boxed{\sqrt{}}\,(95 \div \pi)$

$\sqrt{\dfrac{95}{\pi}} = \sqrt{x^2}$

$\boxed{x = 5.5 \text{ cm}}$

2. Area = 74 ft^2

x
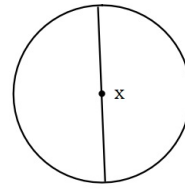
3. Find the radius of a circle with an area of 58 square inches.

4. Find the diameter of a circle with an area of 94 square meters.

$A = \pi r^2$

$94 = \pi x^2$

$x = 5.5 \text{ (radios)}$

$d = 2(5.5) = \boxed{11 \text{ m}}$