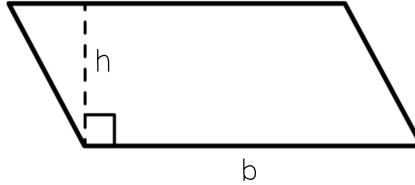Name _____

Date _____ Pd _____

AREA OF TRIANGLES AND TRAPEZOIDS

AREA OF TRIANGLES
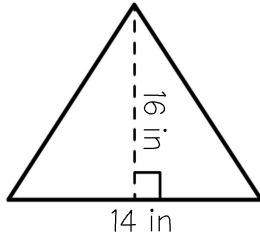
- Two triangles are formed when a _____ is cut in _____.

- Therefore, the formula for the area of a triangle is_____.

- The height of the triangle will form a _____ angle with the base of the triangle.

Label the base and the height of the triangle. Use the formula to find the area of each triangle.
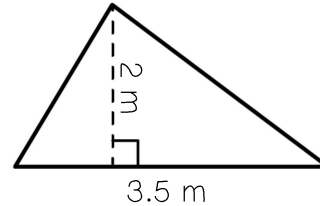
1.

16 in

14 in

Formula: _____

Plug in Values: _____

Area: _____

2.

2 m

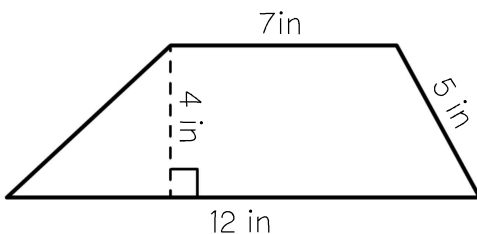3.5 m

Formula: _____

Plug in Values: _____

Area: _____

AREA OF TRAPEZOIDS

- A trapezoid is one or two _____ and a _____ combined.

- To find the area, use the formula _____, where:

  - b_1 is the _____

  - b_2 is the _____

  - h is the _____ of the trapezoid.

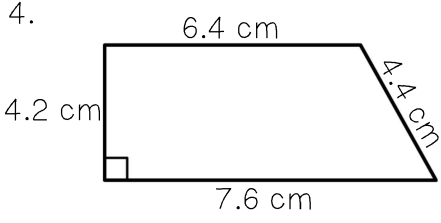3. Use a formula to determine the area of the shape below.
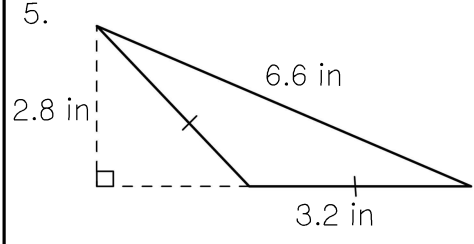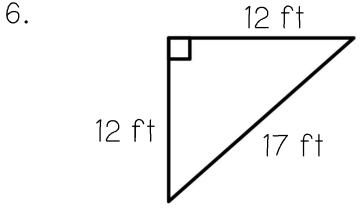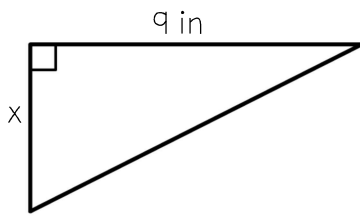

7in

4 in

5 in

12 in
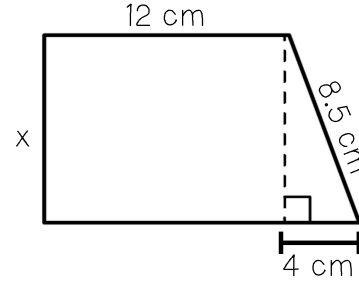
Formula: _____

Plug in Values: _____

Area: _____

Use your understanding of area to answer questions 4-9.

4.

6.4 cm

4.2 cm

4.4 cm

7.6 cm

Formula: _____

Plug in Values: _____

Area: _____

5.

2.8 in

6.6 in

3.2 in

Formula: _____

Plug in Values: _____

Area: _____

6.

12 ft

12 ft

17 ft

Formula: _____
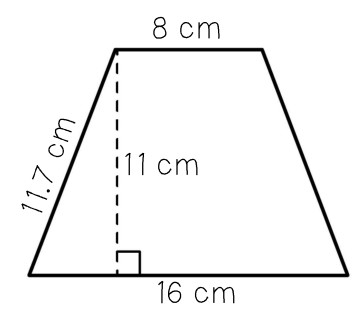
Plug in Values: _____

Area: _____

---

7. A flag banner was created out of scrapbook paper. Eight flags were used to create the banner which has a total area of 108 in^2. What is the height of each flag?

9 in

x

---

8. The area of the trapezoid below is 105 cm^2. What is the height?

12 cm

x

8.5 cm

4 cm

---

9. Small tiles are used to create a mosaic art piece with a total area of 1,584 cm^2. Use the trapezoid below to determine whether each statement is true or false. If false, correct the statement in the space below.

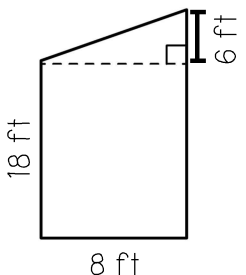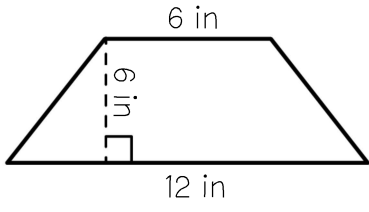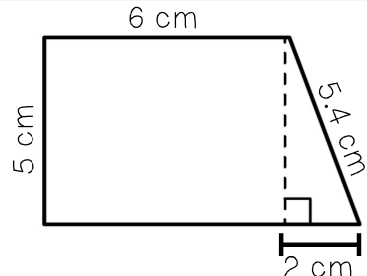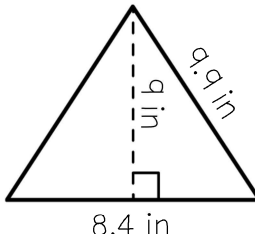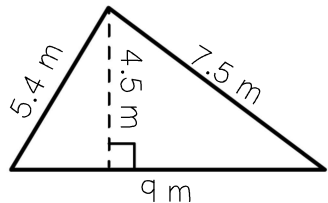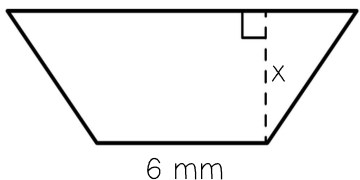_____ a. The area of one tile can be found using $\frac{1}{2}(16 + 8)(11.7)$.

_____ b. The area of one tile is 132 cm^2.

_____ c. In order to create the mosaic art piece, 15 tiles were used.

8 cm

11.7 cm

11 cm

16 cm

Name _____

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AREA OF TRIANGLES AND TRAPEZOIDS

Match each correct answer to a letter and complete the riddle below. Not all choices will be used.

1

What is the area of a right triangle with a height of 8.9 cm and a base of 14.3 cm?

5

Find the area of the trapezoid at the right by decomposing it into familiar shapes.

6 ft

18 ft

8 ft

2

What is the area of the trapezoid?

6 in

9 in

12 in

6

A triangle has an area of 38.4 cm². The height of the triangle is 12.8 centimeters. What is the length of the base of the triangle?

3

Find the area of the trapezoid at the right.

6 cm

5 cm

5.4 cm

2 cm

7

What is the area of the triangle?

9 in

9.9 in

8.4 in

4

Find the area of the triangle below.

5.4 m

4.5 m

7.5 m

9 m

8

A trapezoid has an area of 35 mm². What is the height of the trapezoid?

8 mm

x

6 mm

L: 36	T: 5	F: 12.15	H: 56	A: 37.8	I: 127.5
R: 50.4	C: 12	E: 20.25	S: 35	G: 108	M: 168
H: 63.64	E: 3	W: 35.4	T: 6	A: 54	N: 24

WHAT IS BLACK AND WHITE AND HAS LOTS OF PROBLEMS?

___ ___ ___ ___ ___ ___ ___ ___ ___
2   5   7   6   1   8   4   3   6