NAME Kyle Marie Emerson DATE 3/29/2021 PERIOD Math 1

Lesson 3 Reteach

Area of Composite Figures

A l x w

A b x h / 2

A pi x r x r / 2

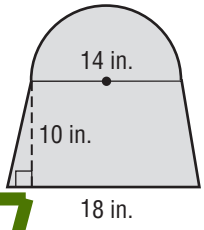
To find the area of a composite figure, decompose the figure into shapes whose areas you know how to find. Then find the sum of these areas.

T b1 + b2 x h / 2

Example

Find the area of the composite figure.

The figure can be separated into a semicircle and trapezoid.

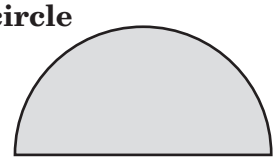


Area of semicircle

$A = \frac{1}{2}\pi r^2$

$A = \frac{1}{2} \cdot \pi \cdot (7)^2$

$A \approx 77.0$

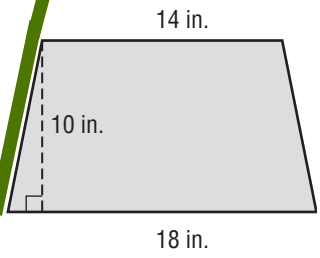


Area of trapezoid

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

$A = \frac{1}{2} \cdot 10 \cdot (14 + 18)$

$A = 160$

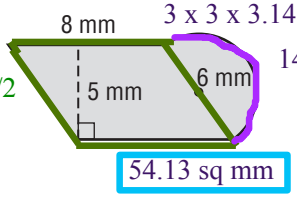


The area of the figure is about 77.0 + 160 or 237 square inches.

Exercises

Find the area of each figure. Round to the nearest tenth if necessary.

1.



3 x 3 x 3.14 / 2

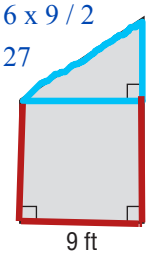
14.13

(8 + 8) x 5 /2

40

54.13 sq mm

2.



6 x 9 / 2

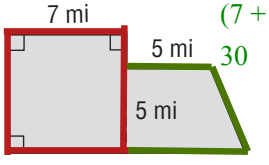
27

108 sq ft

9 x 9

81

3.



(7 + 5) x 5 / 2

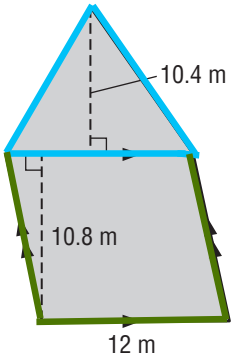
30

7 x 7

49

79 sq mi

4.



12 x 10.4 / 2

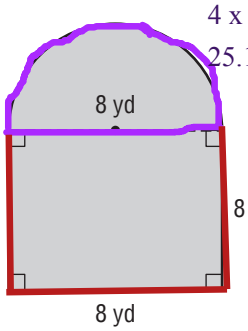
62.4

(12 + 12) x 10.8 / 2

129.6

192 sq m

5.



4 x 4 x 3.14 / 2

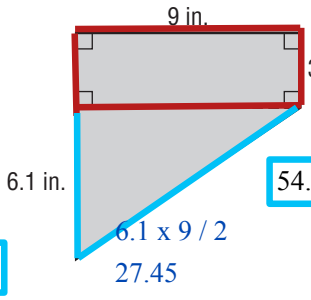
25.12

8 x 8

64

89.12 sq yd

6.



9 x 3

27

54.45 sq in

6.1 x 9 / 2

27.45