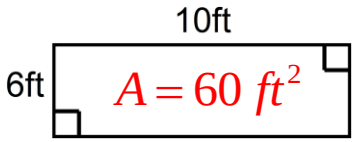
Area Unit Homefun Answers

Unit 11 – Area – Day 1

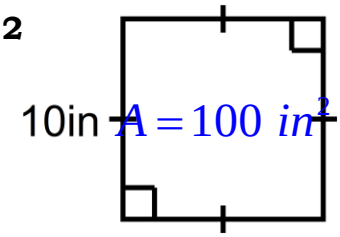
Find the Area of each figure – round to the nearest hundredth.

1.



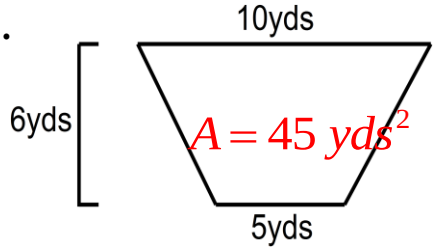
$A = 60\ ft^2$

2



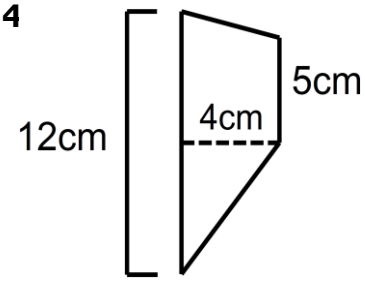
$A = 100\ in^2$

3.



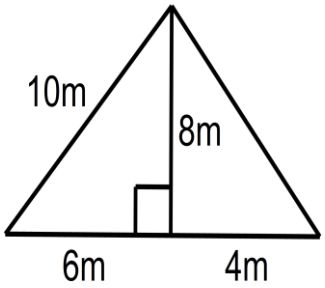
$A = 45\ yds^2$

4



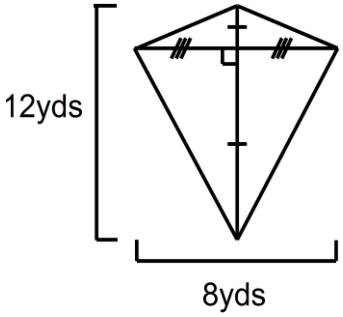
$A = 34\ \ cm^2$

5.



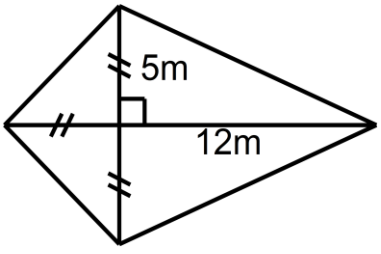
$A = 40\ m^2$

6.



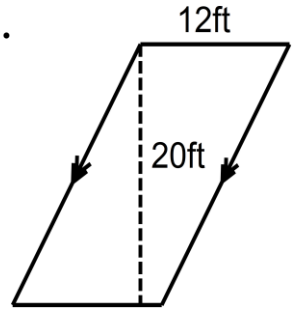
$A = 48\ yds^2$

7.



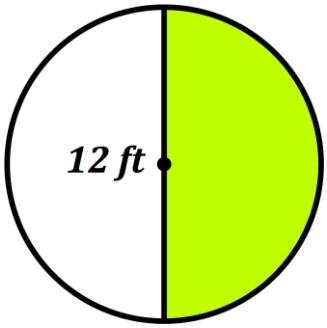
$A = 85\ m^2$

8.



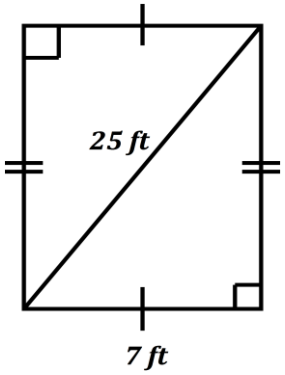
$A = 240\ ft^2$

9.



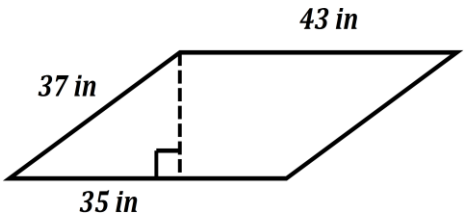
$A = 18\pi = 56.52\ ft^2$

10.



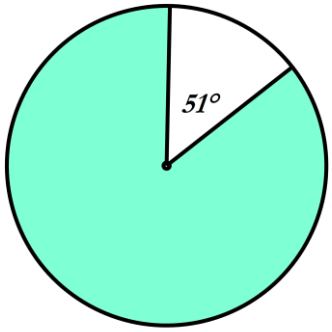
$A = 168\ ft^2$

11.



$A = 516\ in^2$

12.

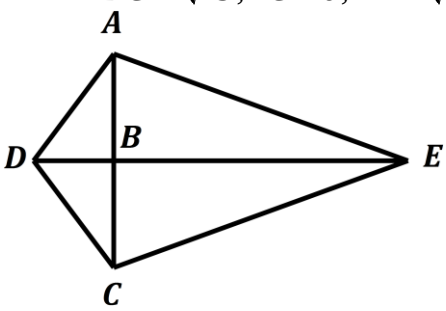


$A = 2.01\ ft^2$

13.

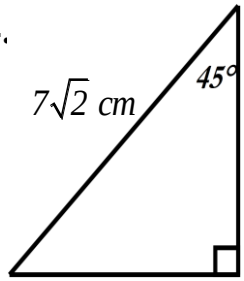
$\overline{AD} \cong \overline{DC},\ \overline{AB} \cong \overline{BC},\ \overline{AE} \cong \overline{CE}$

$DC = \sqrt{13}, AC = 6, AE = \sqrt{73}$



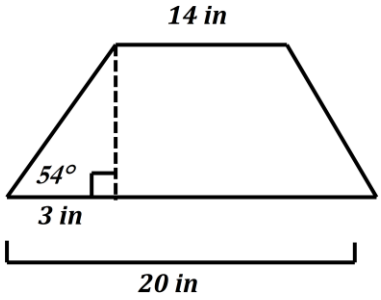
$A = 30\ units^2$

14.



$A = 24.5\ cm^2$

15.



$A = 140.42\ in^2$

16. A trapezoid has a base of 10 feet, a height of 8 feet, and an Area of 64 ft. Find the second base.

$base = 6\ ft$

17. A parallelogram has an Area of 63cm², and a height of 9cm. Find the base.

$base = 7\ cm$

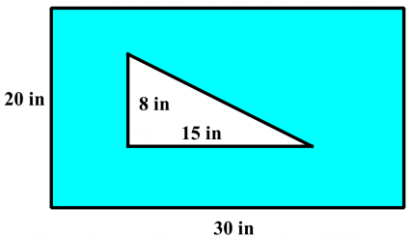
18. An equilateral triangle as base of 30cm. Find the area.

$A = 225\sqrt{3} = 389.71\ cm^2$

Unit 12 – Area – Shaded Area Worksheet

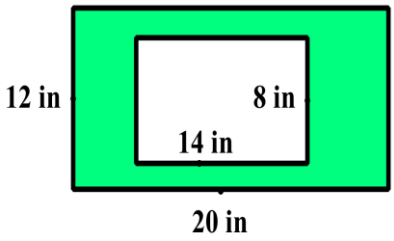
Find the area of the shaded region – round to the nearest hundredth.

1.



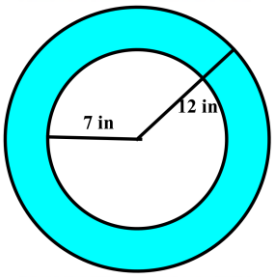
$A = 540\ in^2$

2.



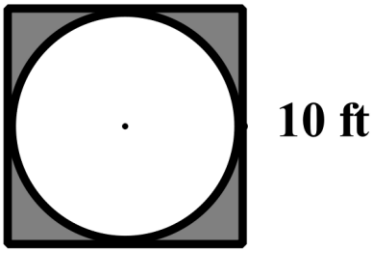
$A = 128\ in^2$

3.



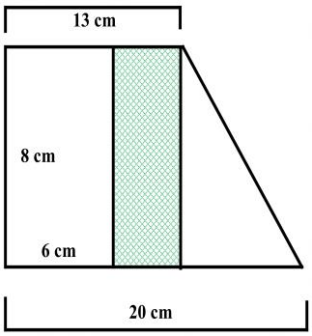
$A = 95\pi = 298.3\ in^2$

4.



$A = 100 - 25\pi = 21.5\ ft^2$

5.

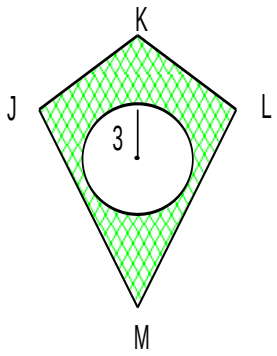


$A = 56\ cm^2$

6.

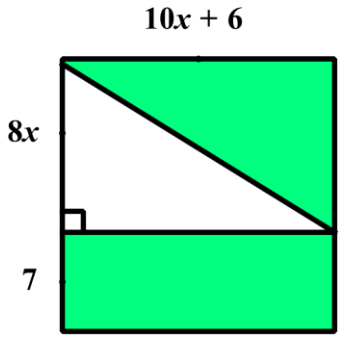
LMJK *is a Kite*

$JL = 10, KM = 16$



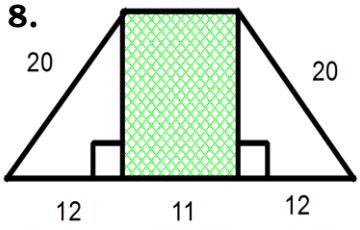
$A = 80 - 9\pi = 51.74\ units^2$

7. Find the area of the shaded region in terms of *x*.



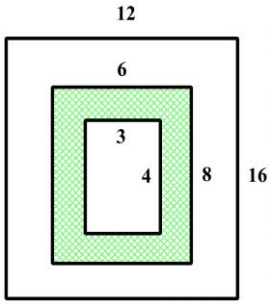
$A = 40x^2 + 94x + 42\ \text{units}^2$

8.



$A = 176\ units^2$

9.

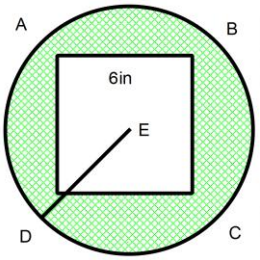


$A = 37\ units^2$

10.

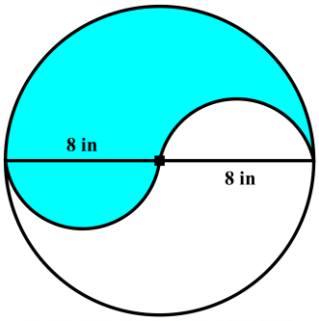
ABCD is a square

$DE = 10in$



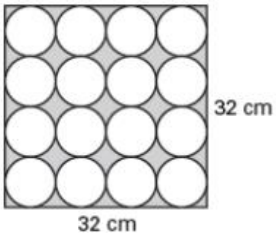
$A = 100\pi - 36 = 278\ in^2$

11.



$A = 32\pi = 100.48\ \text{in}^2$

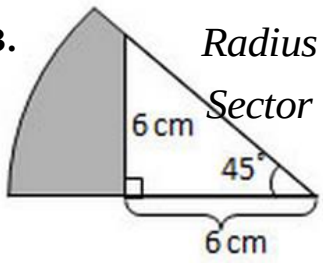
12.



Every Circle is Congruent

13.

Radius of the Sector $= 10cm$



$A = \frac{25}{2}\pi - 18 = 21.25\ \text{cm}^2$

$A = 1024 - 256\pi = 220.16\ \text{cm}^2$

14. A 2 x 2 inch Square in inside a 5 x 6 inch rectangle. Find the area of the space that is outside the square and inside the rectangle.

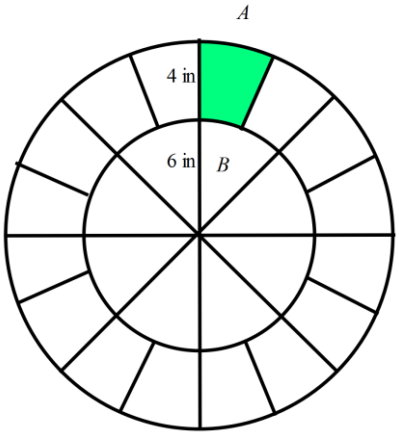
$$A = 26 \text{ in}^2$$

15. Stanley and Samantha Huggs must mow the rectangular back yard. The backyard is 30 feet by 20 feet. If Samantha already mowed an area of 320ft^2, how much does Stanley have to left to mow?

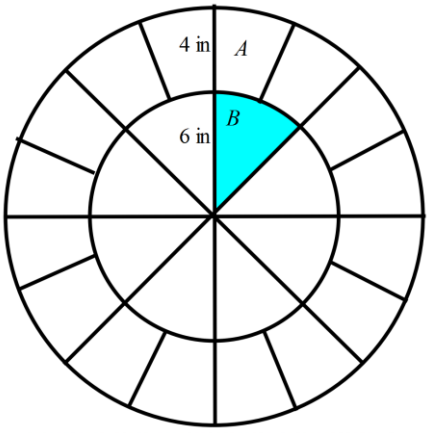
$$A = 280 \text{ ft}^2$$

16. A large circular cake is cut into the pieces shown below.

A) Find the area of section A. **B)** Find the area of section B. **C)** Which is larger?



$$A = \frac{21}{4}\pi \text{ in}^2$$



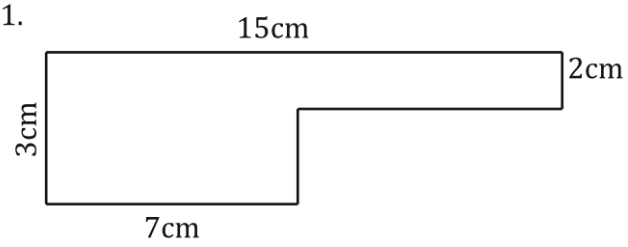
$$A = \frac{9}{2}\pi \text{ in}^2$$

$$A$$

Unit 12 – Area – Day 3 – Compound Figures Worksheet

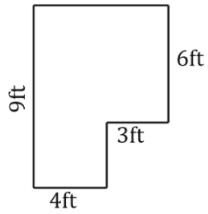
Find the area of each shape – round to the nearest hundredth.

1.



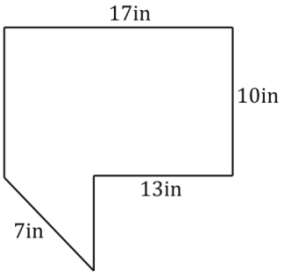
$A = 37\ cm^2$

2.



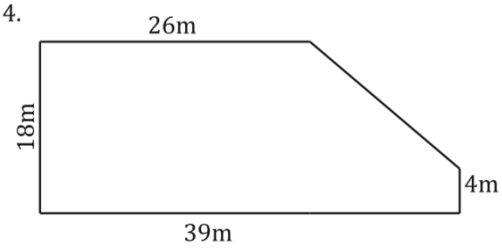
$A = 54\ ft^2$

3.



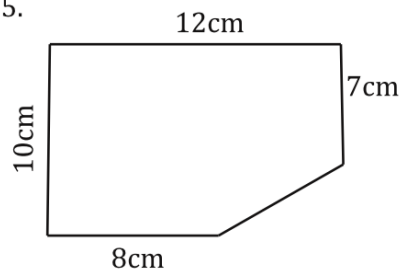
$A = 181.48\ in^2$

4.



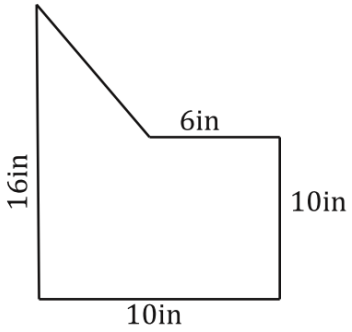
$A = 611\ m^2$

5.



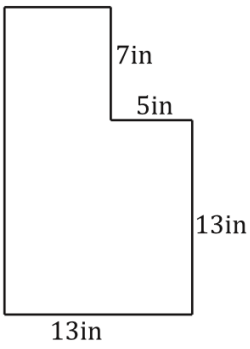
$A = 114\ cm^2$

6.



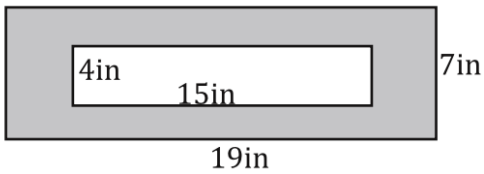
$A = 112\ in^2$

7.



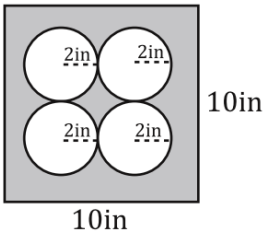
$A = 225\ in^2$

8. Find the shaded area.



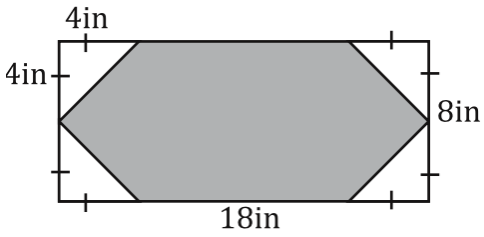
$A = 73\ in^2$

9. Find the shaded area.



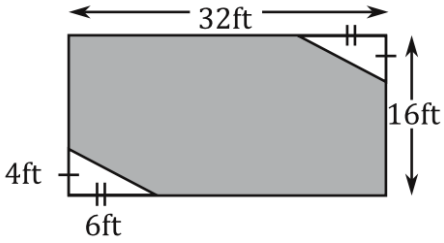
$A = 100 - 16\pi = 49.76\ in^2$

10. Find the shaded area.



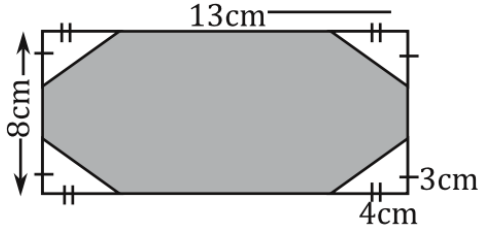
$A = 112 \text{ in}^2$

11. Find the shaded area.



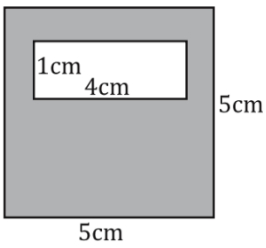
$A = 488 \text{ ft}^2$

12. Find the shaded area.



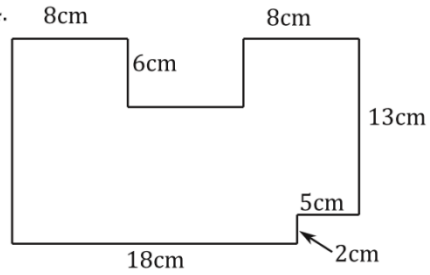
$A = 80 \text{ cm}^2$

13. Find the shaded area.



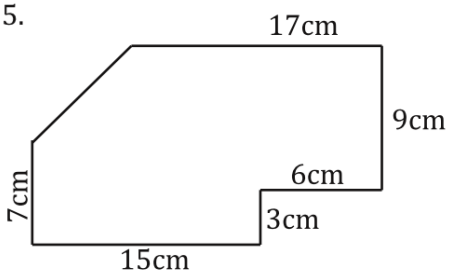
$A = 21 \text{ cm}^2$

14.



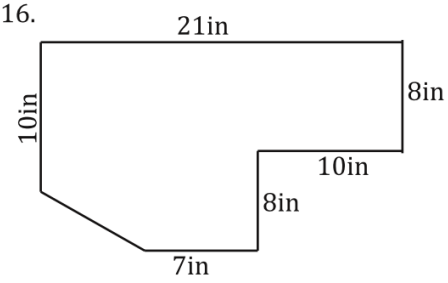
$A = 293 \text{ cm}^2$

15.



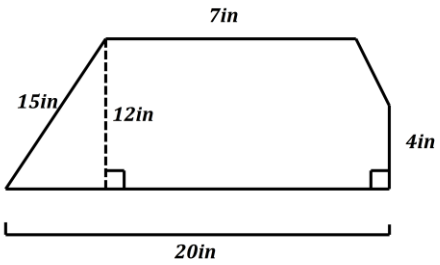
$A = 224 \text{ cm}^2$

16.



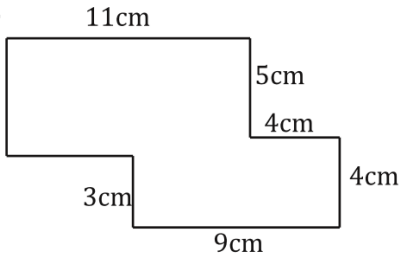
$A = 244 \text{ in}^2$

17.



$A = 170 \text{ in}^2$

18.

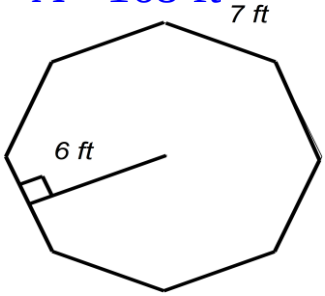


$A = 97 \text{ cm}^2$

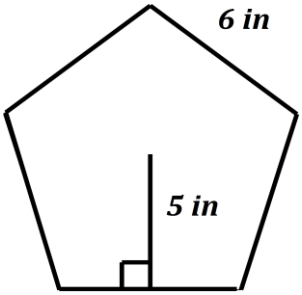
Unit 12 – Area – Day 4 – Area of Regular Polygons Part 1 Worksheet

Find the area of the following regular polygons – round to the nearest hundredth.

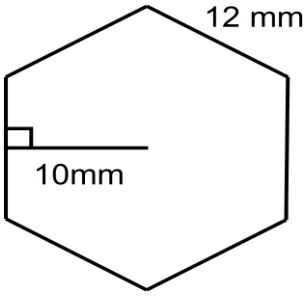
1. $A = 168 \text{ ft}^2$



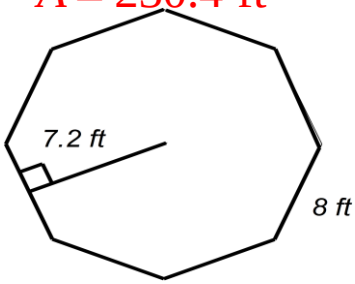
2. $A = 75 \text{ in}^2$



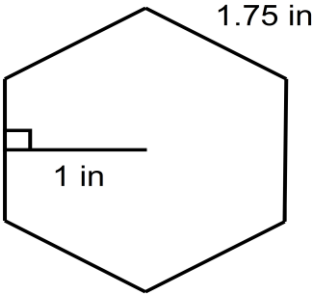
3. $A = 360 \text{ mm}^2$



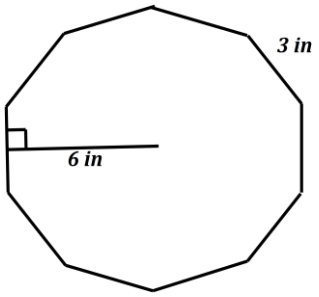
4. $A = 230.4 \text{ ft}^2$



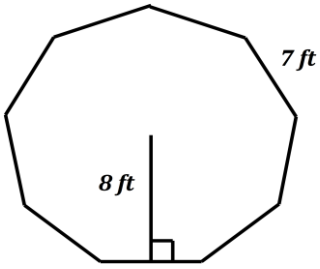
5. $A = 5.25 \text{ in}^2$



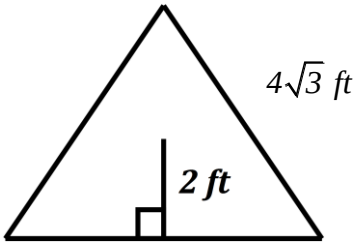
6. $A = 90 \text{ in}^2$



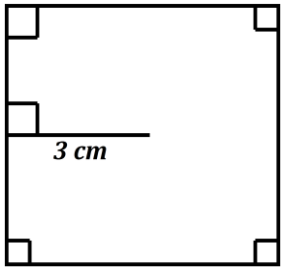
7. $A = 252 \text{ ft}^2$



8. $A = 20\sqrt{3} = 20.78 \text{ ft}^2$

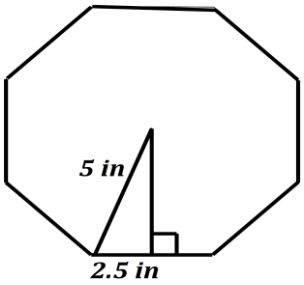


9. $A = 36 \text{ cm}^2$



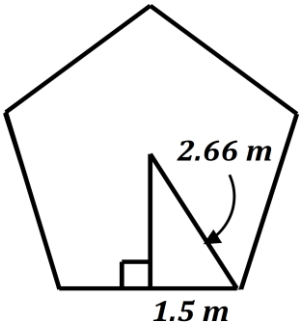
$A = 86.6 \text{ in}^2$

10.



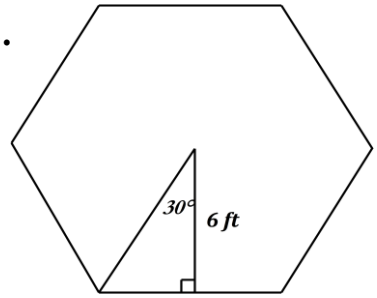
$A = 16.5 \text{ in}^2$

11.



$A = 124.56 \text{ in}^2$

12.



13. Find the area of an octagon with an apothem 4.8 centimeters long, and has a side of 4 centimeters long.

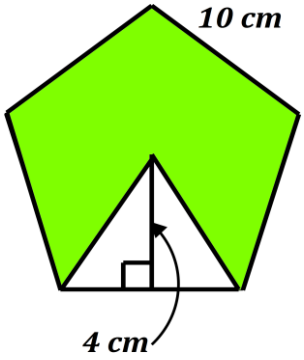
$A = 76.8 \text{ cm}^2$

14. Find the length of a side of a hexagon that has an area of 230 square meters, and an apothem of 20 meters long.

$A = 1380 \text{ m}^2$

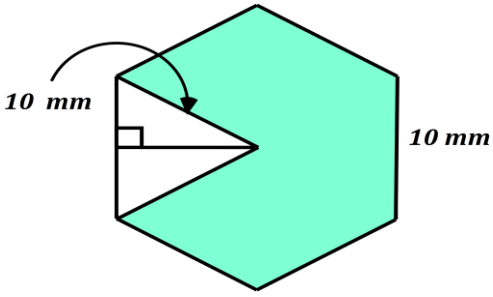
Find the area of the shaded region (assume all hexagons and pentagons are regular).

15.



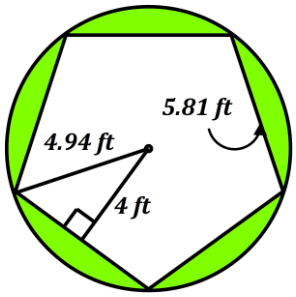
$A = 80 \text{ cm}^2$

16.



$A = 216.5 \text{ mm}^2$

17.

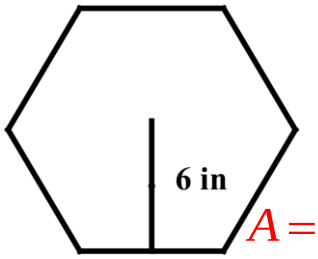


$A = 18.53 \text{ ft}^2$

Unit 12 – Area – Area of Regular Polygons – Part 2 Worksheet

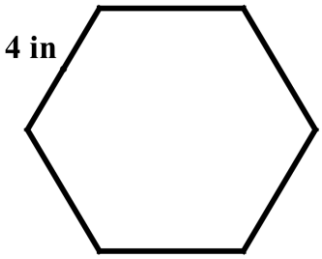
Find the area of the following regular polygons – round to the nearest hundredth.

1.



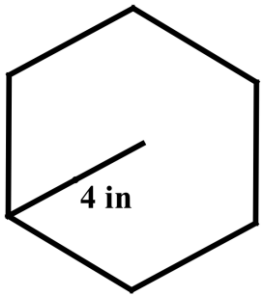
$A = 108\sqrt{3} = 187.06 \text{ in}^2$

2.



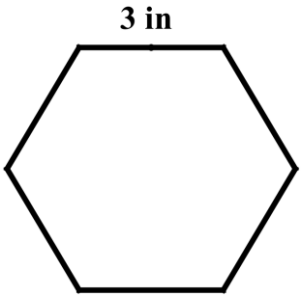
$A = 24\sqrt{3} = 41.57 \text{ in}^2$

3.



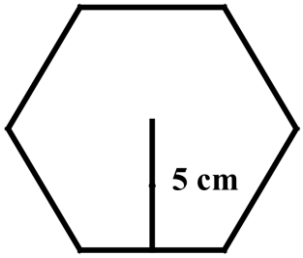
$A = 24\sqrt{3} = 41.57 \text{ in}^2$

4.



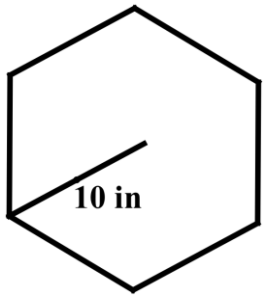
$A = 18\sqrt{3} = 31.18 \text{ in}^2$

5.



$A = 50\sqrt{3} = 86.6 \text{ cm}^2$

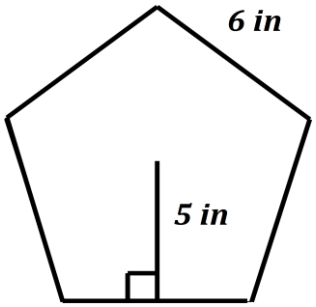
6.



$A = 100\sqrt{3} = 173.21 \text{ in}^2$

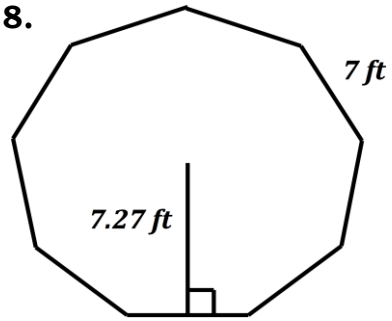
Mixed Review: Find the area or shaded area of the following figures

7.



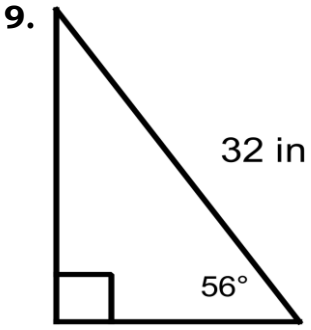
$A = 75 \text{ in}^2$

8.



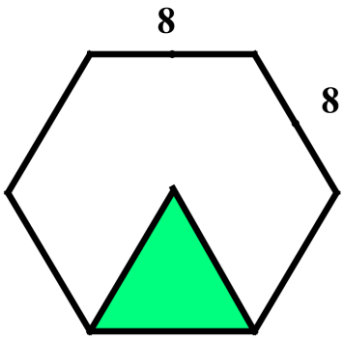
$A = 229.005 \ ft^2$

9.



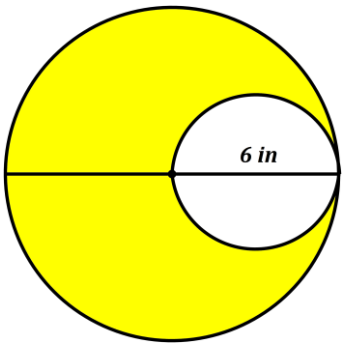
$A = 74.17 \ \ in^2$

9.



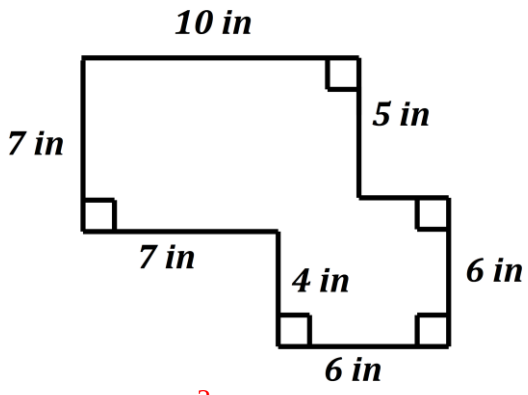
$A = 16\sqrt{3} = 27.71 \text{ units}^2$

10.



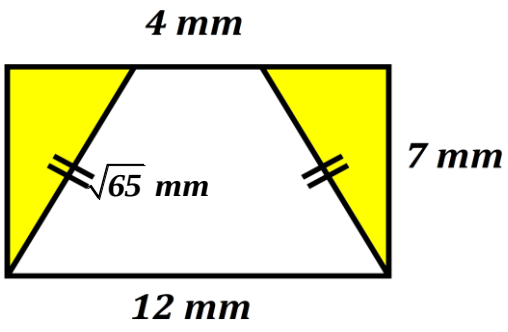
$A = 27\pi = 84.78 \ \ in^2$

11.



$A = 100 \text{ in}^2$

12.

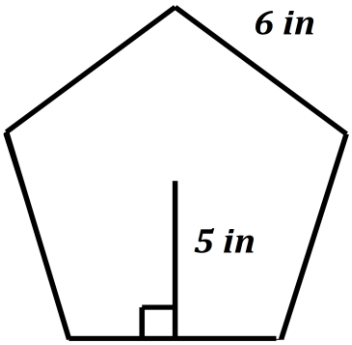


$A = 56 \ \ mm^2$

Unit 12 – Area – Area of Regular Polygons – Part 3 Worksheet

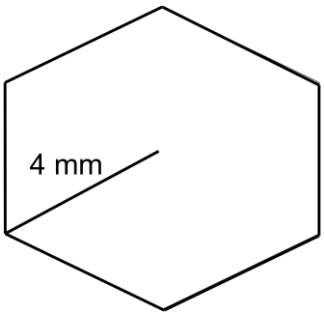
Find the area of the following regular polygons – round to the nearest hundredth.

1.



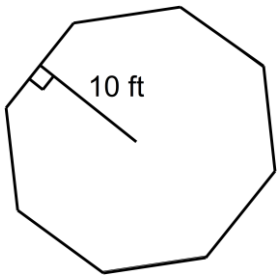
$A = 75 \text{ in}^2$

2.



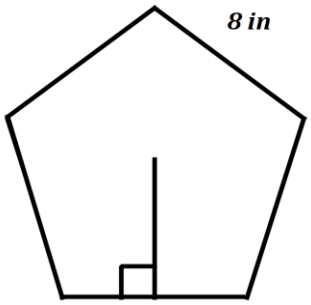
$A = 24\sqrt{3} = 41.57 \text{ in}^2$

3.



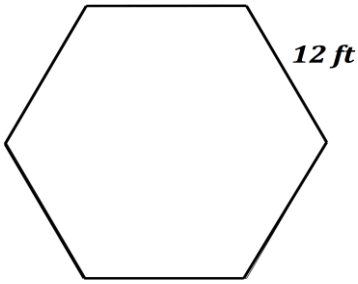
$A = 400 \text{ ft}^2$

4.



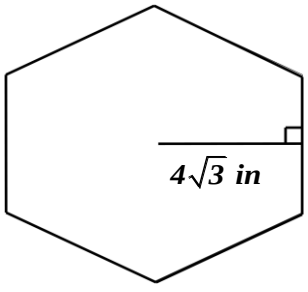
$A = 110.11 \text{ in}^2$

5.



$A = 216\sqrt{3} = 374.12 \text{ ft}^2$

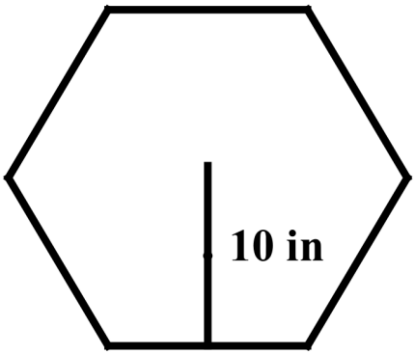
6.



$A = 96\sqrt{3} = 166.28 \text{ in}^2$

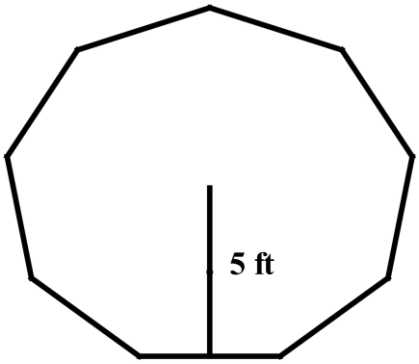
Find the area of the following composite figures.

7.



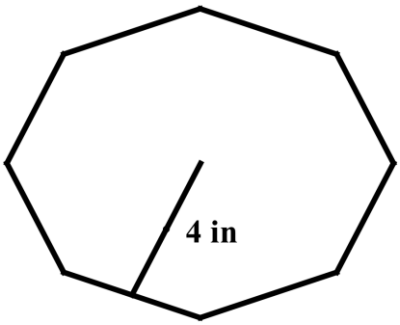
$A = 100\sqrt{3} = 173.21 \text{ in}^2$

8.



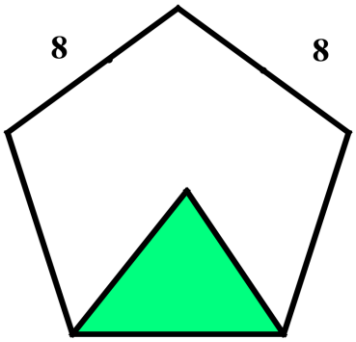
$A = 81.89 \text{ ft}^2$

9.



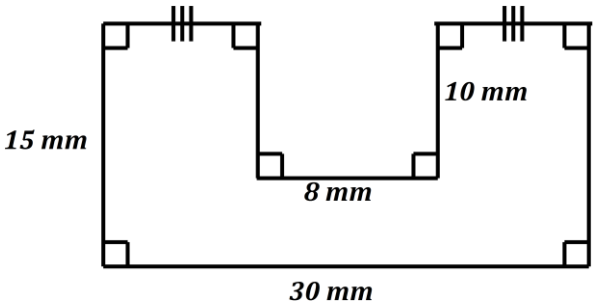
$A = 53.02 \text{ in}^2$

10.



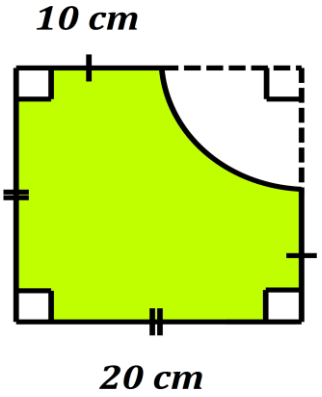
$A = 16\sqrt{3} = 27.71 \text{ units}^2$

11.



$A = 370 \text{ mm}^2$

12.

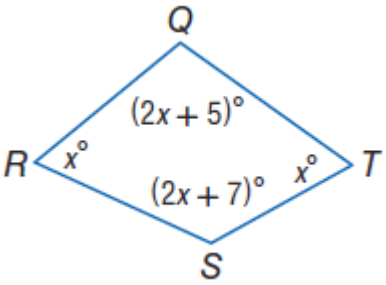


$A = 400 - 25\pi = 321.5 \text{ cm}^2$

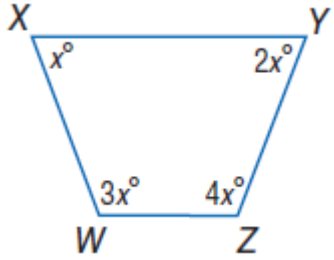
Unit 12 – Area – Day 7 – Angles of a Polygon Worksheet

Find the following.

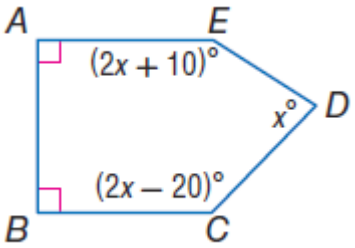
1. $m\angle R =$ 58°



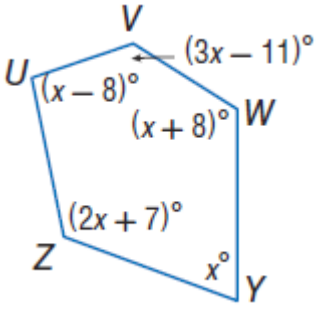
2. $m\angle X =$ 36°



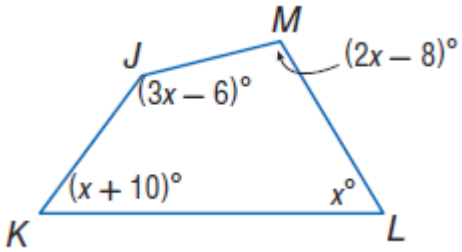
3. $m\angle D =$ $A = 74°$



4. $m\angle Y =$ 106.6°



5. $m\angle M =$ 96°



Find the measure of each interior angle of each regular polygon.

6. Dodecagon (12 sides)

150°

8. Heptagon

128.57°

9. 13–gon

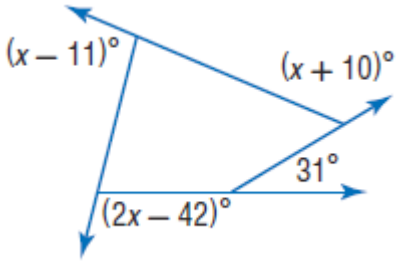
152.31°

10. 20–gon

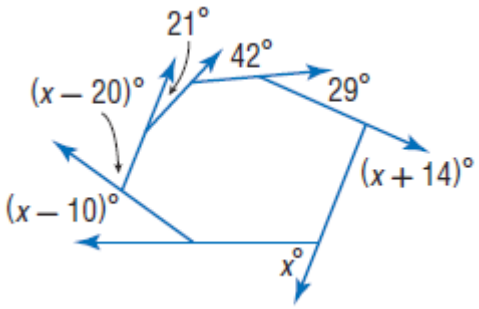
162°

Find the following.

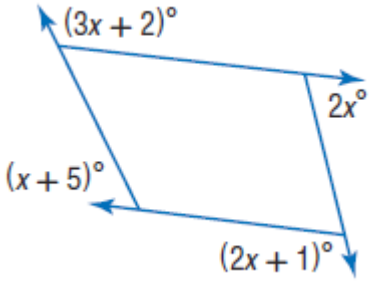
11. $x =$ 93°



12. $x =$ 71°



13. $x =$ 44°



Find the measure of each exterior angle for each regular polygon.

14. Decagon 36°

15. Octagon 45°

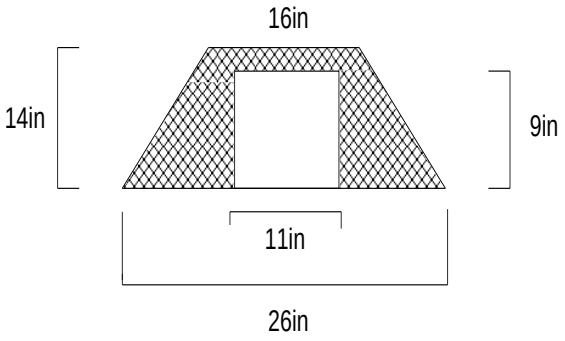
16. Heptagon 51.43°

17. 15–gon 24°

Mixed Review.

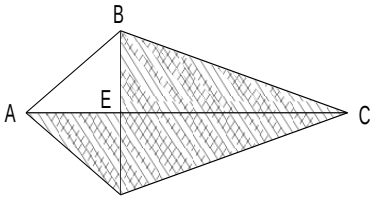
Find the Area of the Shaded Region.

18.



$A = 195\ in^2$

19.



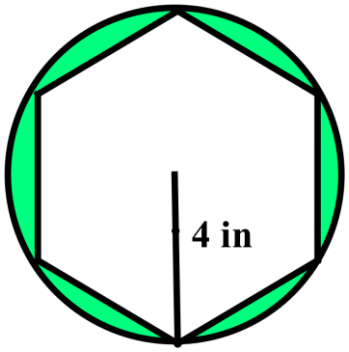
$\overline{AE} \cong \overline{BD} \cong \overline{DE}$

$AE = 6\ ft$

$EC = 19\ ft$

$A = 132\ ft^2$

20.



$A = 16\pi - 24\sqrt{3} = 8.67\ \ in^2$