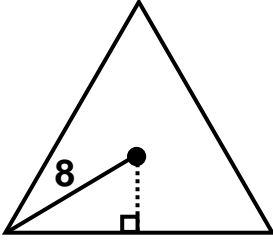
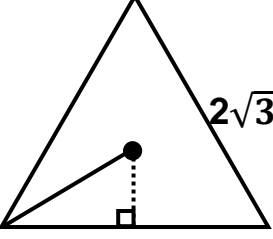
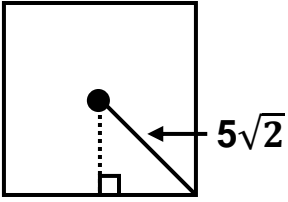
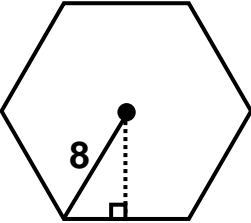
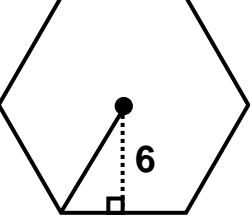
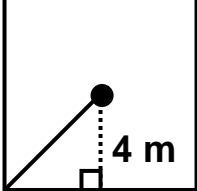
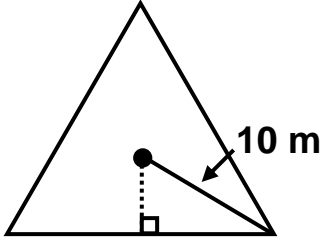
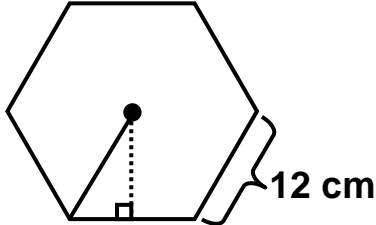


NAME _____ DATE _____ PER. _____

REVIEW #15: MORE PERIMETER & AREA**PART 1: Perimeter & Area of Regular Polygons**

Find the perimeter and area of the regular polygons below.

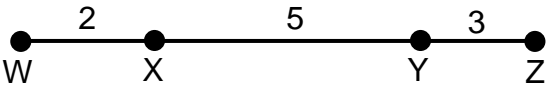
1. P = _____ A = _____	 <p>An equilateral triangle with a side length of 8. A solid line segment of length 8 is drawn from the bottom-left vertex to the center. A dashed vertical line segment is drawn from the center to the bottom side, meeting it at a right angle.</p>
2. P = _____ A = _____	 <p>An equilateral triangle with a side length of $2\sqrt{3}$. A solid line segment is drawn from the bottom-left vertex to the center. A dashed vertical line segment is drawn from the center to the bottom side, meeting it at a right angle.</p>
3. P = _____ A = _____	 <p>A square with a side length of $5\sqrt{2}$. A solid line segment is drawn from the bottom-left vertex to the center. A dashed vertical line segment is drawn from the center to the bottom side, meeting it at a right angle.</p>
4. P = _____ A = _____	 <p>A regular hexagon with a side length of 8. A solid line segment is drawn from the bottom-left vertex to the center. A dashed vertical line segment is drawn from the center to the bottom side, meeting it at a right angle.</p>
5. P = _____ A = _____	 <p>A regular hexagon with a side length of 6. A solid line segment is drawn from the bottom-left vertex to the center. A dashed vertical line segment is drawn from the center to the bottom side, meeting it at a right angle.</p>
6. P = _____ A = _____	 <p>A square with a side length of 4 m. A solid line segment is drawn from the bottom-left vertex to the center. A dashed vertical line segment is drawn from the center to the bottom side, meeting it at a right angle.</p>

<p>7. P = _____</p> <p>A = _____</p>	
<p>8. P = _____</p> <p>A = _____</p>	
<p>9. P = _____</p> <p>A = _____</p>	<p>A regular pentagon that has an apothem with length 11 m. *Round to the nearest hundredth</p>
<p>10. P = _____</p> <p>A = _____</p>	<p>A regular octagon that has a radius with a length of 10 cm *Round to the nearest hundredth</p>
<p>11. A = _____</p>	<p>A regular decagon that has a perimeter of 60 *Round to the nearest hundredth</p>
<p>12. P = _____</p> <p>A = _____</p>	<p>Johnny and his two best friends always play cards together. If they sit at a square table, one person is always closer to the deck than the others. So, Johnny decides to make a triangular table such that when the deck is in the center of the table and each player is sitting in the middle of his respective side, every player is 20 cm away from the deck. What is the area and perimeter of Johnny's table?</p>

Find the indicated measure.

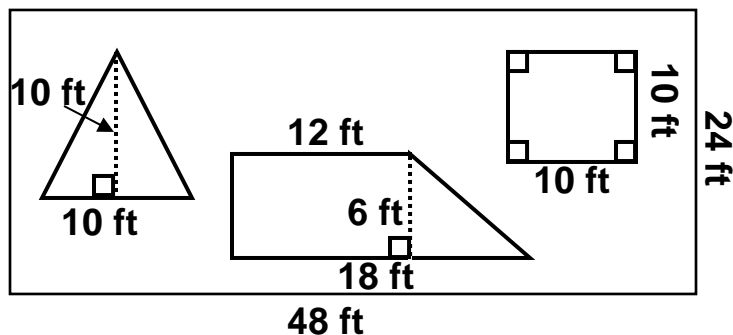
13. _____	Samantha wants to make a shade for a square window in her house. She measured the bottom side of the window and found it had length 30 cm. How much fabric should Samantha buy?
14. P = _____ A = _____	Bethany is contracting a hexagonal hot tub for her backyard. She wants the diameter to be 6 ft. What is the area and perimeter of the hot tub after it is made?
15. P = _____ A = _____	Mark and Sarah want to build a gazebo for their backyard. If they build an octagonal gazebo with each side 5 meters long, what is the measure of the area and perimeter of the base of the gazebo?

PART 2: Geometric Probability**Solve each problem as indicated.**

16. _____	<p>A point is chosen randomly on \overline{WZ}. Use the picture to answer questions 16 – 19.</p> <div style="text-align: center;">  </div> <p>Find the probability that the point chosen is on XZ.</p>
17. _____	Find the probability that the point chosen is not on \overline{XY} .
18. _____	Find the probability that the point chosen is on \overline{WX} or \overline{YZ} .
19. _____	Find the probability that the point chosen is on \overline{WY} .

20. _____

A point is chosen randomly inside of the rectangle. Use the picture to answer questions 20 – 23. Round answers to the nearest hundredth.



Find the probability that the point is in the triangle.

21. _____

Find the probability that the point is in the trapezoid or square.

22. _____

Find the probability that the point is not in the square.

23. _____

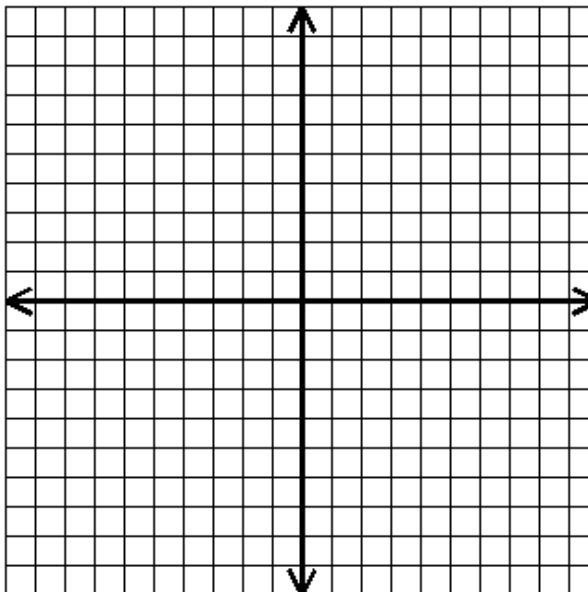
Find the probability that the point is in the part of the rectangle that does not include the square, triangle, or trapezoid.

PART 4: Area Under a Curve

For the given interval, determine the total area and net area between the graph of the given function and the x-axis.

24. Interval: $-3 \leq x \leq 6$

Function: $y = \frac{2}{3}x$



Total Area = _____

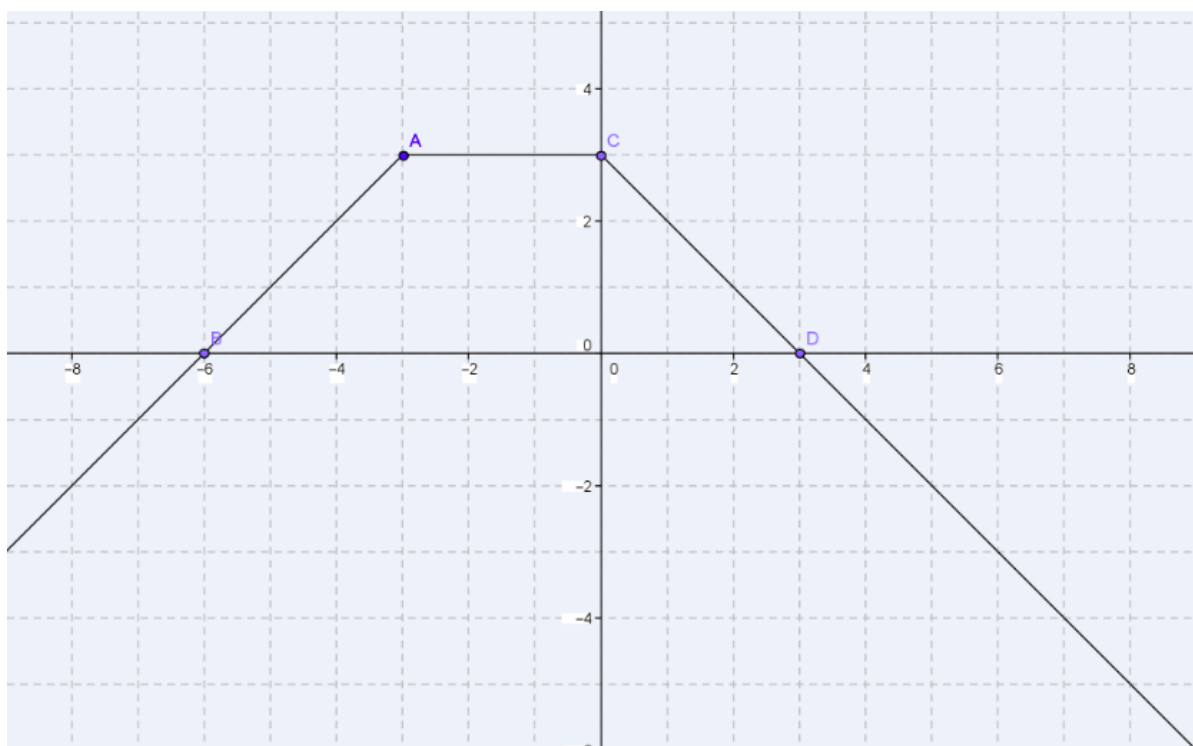
Net Area = _____

25. Interval: $-8 \leq x \leq 5$

Function: $f(x) = \begin{cases} x + 6, & x \leq -3 \\ 3, & -3 \leq x \leq 0 \\ -x + 3, & x \geq 0 \end{cases}$

Total Area = _____

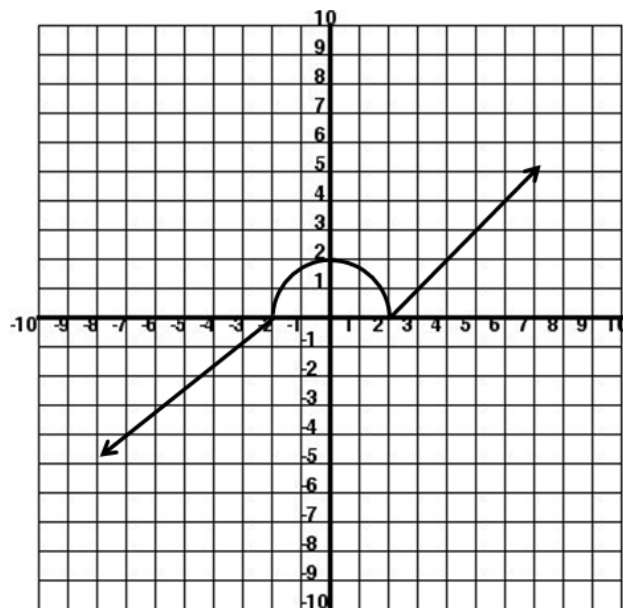
Net Area = _____



26. Interval: $-7 \leq x \leq 5$

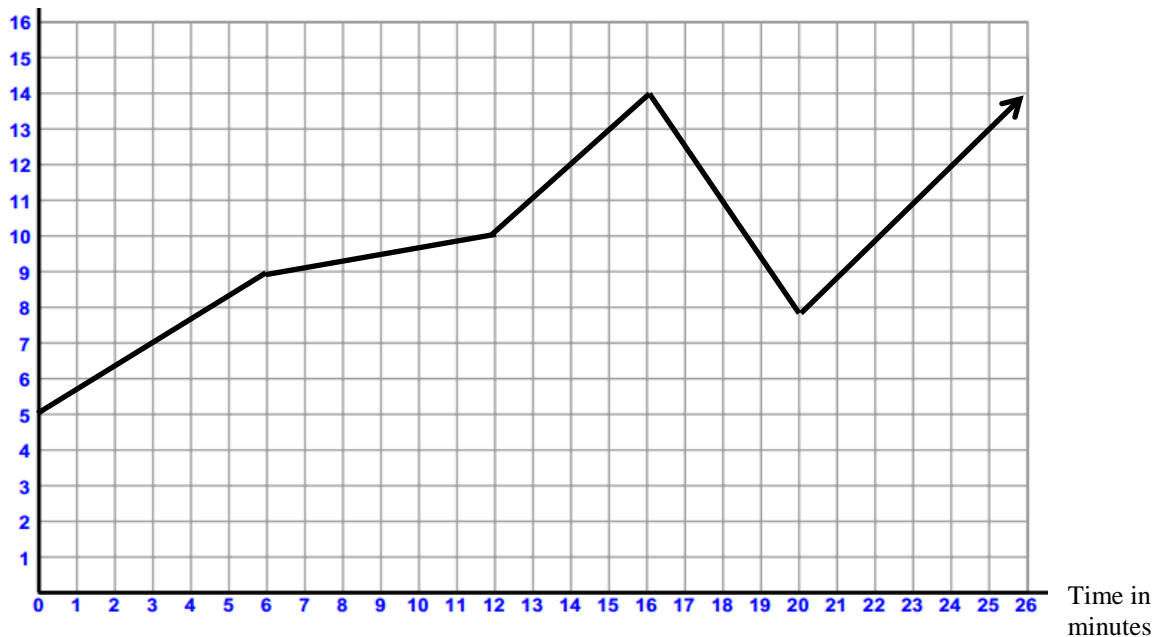
Total Area = _____

Net Area = _____



27. The rate of fuel consumption, in gallons per minute, recorded during an airplane flight is represented by the graph below. The area under the curve represents the product of (minutes)*(gallons per minute) which is gallons. Find the amount of fuel that is used after the following minutes.

Gallons per minute



- When time started how much had already been consumed?
- How many gallons of fuel were consumed after the first 20 minutes?