

5	pentagon
6	hexagon
7	heptagon
8	octagon
9	nonagon
10	decagon
11	11-gon
12	dodecagon
$n > 12$	n -gon

These formulas are printed on the quiz for your reference.

Any polygon		Regular Polygon (all sides and angles congruent)	
Sum of <u>all</u> interior angles:	Sum of <u>all</u> exterior angles:	<u>One</u> interior angle:	<u>One</u> exterior angle:
$180(n-2)$	360°	$\frac{180(n-2)}{n}$	$\frac{360}{n}$

Regular Polygons:

- Find the measure of one interior angle of a regular nonagon.
- Find the measure of one exterior angle of a regular nonagon.
- If the measure of one interior angle of a regular polygon is 157.5° , find the number of sides.
- If the sum of the interior angles of a polygon is 2160° , find the number of sides.
- If one exterior angle of a regular polygon is 20° , find the number of sides.
- What is the measure of one interior angle of a regular dodecagon?
- If the measure of one interior angle of a regular polygon is 162° , find the number of sides.
- What is the sum of the interior angles of a heptagon?
- What is the measure of one interior angle of a regular pentagon?
- If the measure of one exterior angle of a regular polygon is 9° , how many sides must it have?

Other Polygons: Find the value of each variable. Do the work on separate paper.

<p>11.</p>	<p>12.</p>	
<p>13.</p>	<p>14.</p>	<p>15.</p>

Triangle Inequalities:

<p>16. If a triangles has two sides lengths of 10 and 12, which of the following could be the length of the third side. Circle all the ones the work.</p> <p>1 2 5 9 18 21 22 30</p>	<p>17. Using the figure shown, which side length is the shortest and longest. Figure is not drawn to scale.</p>	
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Algebra Review:

<p>18. Solve the equation by factoring: $3x^2 + 7x - 6 = 0$</p>	<p>19. Solve the equation with the quadratic formula: $3x^2 + 7x - 6 = 0$</p>
<p>20. Find the equation of the line that passes through $(15,2)$ and $(-6,16)$. Show work with point slope formula. Leave final answer in slope intercept form.</p> <p>Formulas: Slope: $m = \frac{y_2 - y_1}{x_2 - x_1}$ Point-Slope: $y - y_1 = m(x - x_1)$ Slope Intercept: $y = mx + b$</p>	<p>21. Graph each line: a) $y = \frac{-1}{2}x - 3$ b) $3x - y = 2$ c) $x = -4$</p> <p>22. Determine which pairs of lines (if any) are parallel or perpendicular.</p> <div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p>Line m: $y = 2x - 5$ Line n: $3x + 6y = 12$ Line p: $6x - 3y = 24$</p> </div>