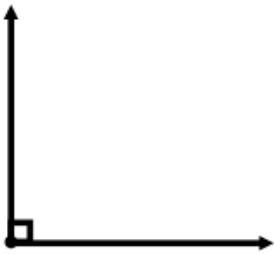
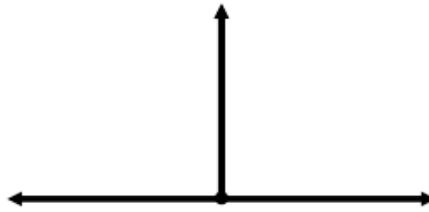


9.1 – The Sum of the Angles of a Triangle

Right angle and straight angle review



State the measure of the angle above:



State the measure of the angle on the left:

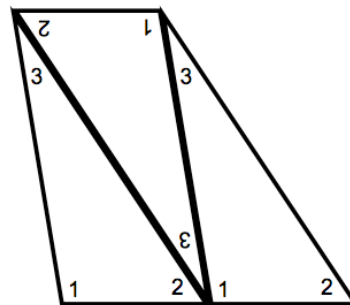
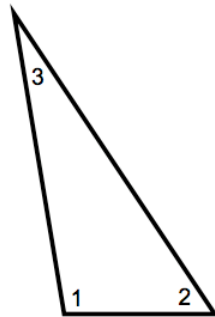
State the measure of the angle on the right:



State the measure of the angle above:

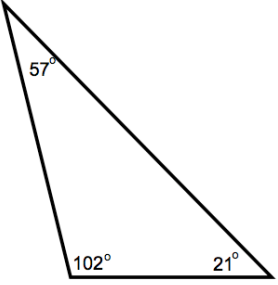
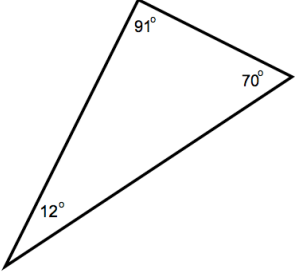
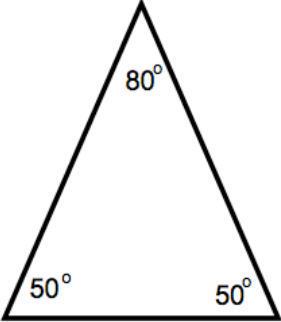
The Triangle

$$m\angle 1 + m\angle 2 + m\angle 3 =$$

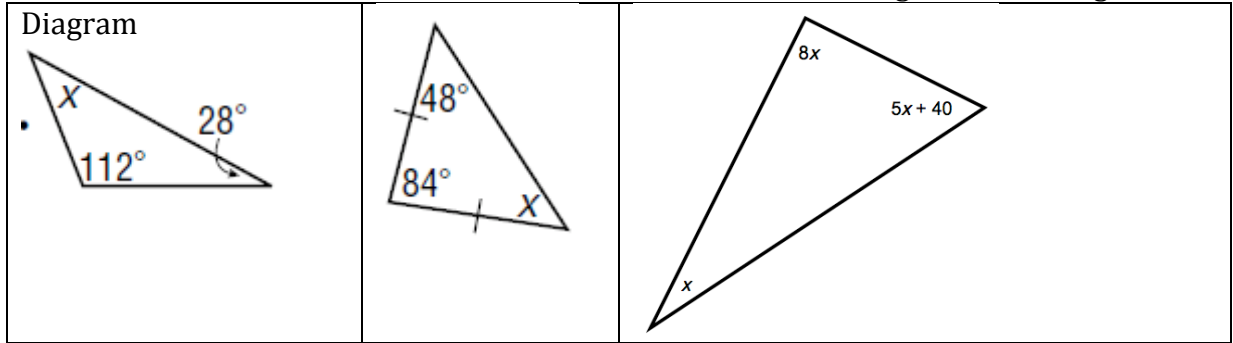


Using the diagram above, explain why the three angles of a triangle add up to 180 degrees.

LP#1 – State whether or not the angle measures given are valid for a triangle.

<p>Angle measures of 120, 35, 25</p> <p>80, 70, 40</p>	<p>Diagrams</p> 	<p>Let $x = 20$ $m\angle 1 = x$ $m\angle 2 = 4x$ $m\angle 3 = x + 50$</p>
<p>100, 50, 20</p> <p>65, 55, 60</p>		<p>Let $x = 100$ $m\angle 1 = x - 90$ $m\angle 2 = 2x - 80$ $m\angle 3 = 150 - x$</p>
<p>20, 60, 100</p> <p>50, 70, 60</p>		<p>Let $x = 75$ $m\angle 1 = x + 15$ $m\angle 2 = 2x - 100$ $m\angle 3 = x - 35$</p>

LP#2 - Determine the value of x and state the measure of each angle of the triangle.

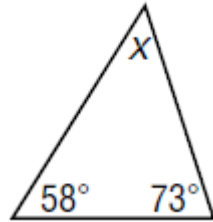
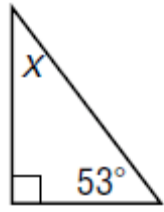
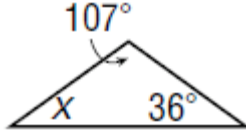
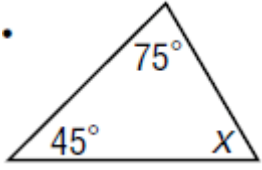
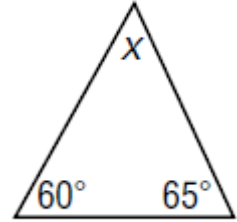
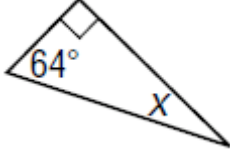
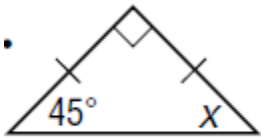
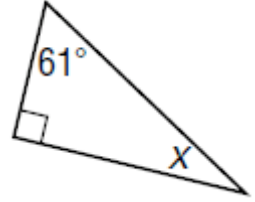
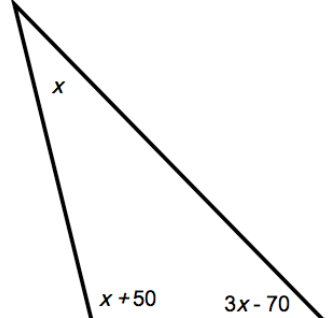
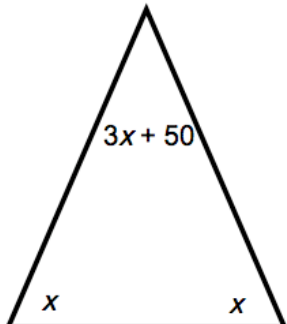


Homework - State whether or not the angle measures given are valid for a triangle.

- | | | | | | |
|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|
| 1.
110, 45, 25 | 2.
60, 80, 50 | 3.
125, 35, 10 | 4.
72, 50, 58 | 5.
17, 62, 101 | 6.
44, 73, 57 |
|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|

- | | | | |
|--|---|---|--|
| 7. Let $x = 25$
$m\angle 1 = 3x$
$m\angle 2 = 2x$
$m\angle 3 = x + 30$ | 8. Let $x = 30$
$m\angle 1 = 100 - x$
$m\angle 2 = 3x$
$m\angle 3 = x - 10$ | 9. Let $x = 60$
$m\angle 1 = x + 40$
$m\angle 2 = x + 5$
$m\angle 3 = x - 25$ | 10. Let $x = 15$
$m\angle 1 = x$
$m\angle 2 = 10x$
$m\angle 3 = x$ |
|--|---|---|--|

Directions - Determine the value of x and state the measure of each angle of the triangle.

- | | | | |
|---|--|--|---|
| 11.
 | 12.
 | 13.
 | 14.
 |
| 15.
 | 16.
 | 17.
 | 18.
 |
| 19.
 | 20.
 | | |