

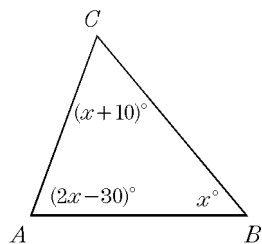
Triangle Sums

Name: _____

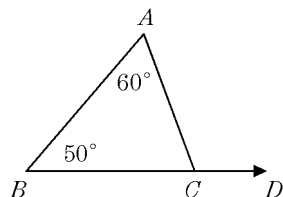
October 31, 2016

Homework (due Wednesday November 2)

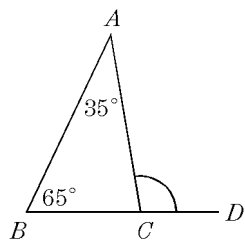
1. In the accompanying diagram, $m\angle A = 2x - 30$, $m\angle B = x$, and $m\angle C = x + 10$. Find the number of degrees in $\angle B$.



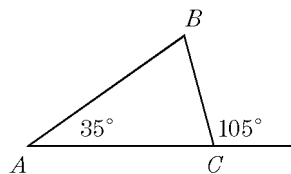
2. The measures of the angles of a triangle are represented by $4x$, $x + 40$, and $2x$. Find the value of x .
3. The measures of the angles of a triangle are represented by $(3x - 20)$, $(7x + 30)$, and $(2x + 50)$. Find x .
4. In the accompanying diagram, $\angle ACD$ is an exterior angle of $\triangle ABC$. If $m\angle A = 60$ and $m\angle B = 50$, find $m\angle ACD$.



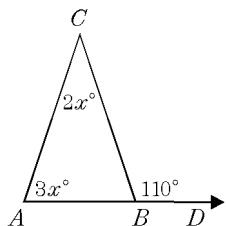
5. In the accompanying diagram, $\angle ACD$ is an exterior angle of $\triangle ABC$. If $m\angle A = 35$ and $m\angle B = 65$, find $m\angle ACD$.



6. In the accompanying diagram of $\triangle ABC$, the measure of an exterior angle at C is 105 and $m\angle A = 35$. Find $m\angle B$.



7. In the accompanying diagram, the measure of exterior angle CBD is 110° . If the measures of the two nonadjacent interior angles are represented by $3x^\circ$ and $2x^\circ$, find the value of x .



8. In $\triangle ABC$, $m\angle B$ is 10° larger than $m\angle A$, and $m\angle C$ is 5° less than 3 times $m\angle A$. Find $m\angle A$.

9. The number of degrees in the measures of the angles of a triangle are represented by x , $3x + 7$, and $4x + 5$. Find the value of x .
10. If the measures of the angles of a triangle are represented by x , $3x + 6$, and $2x - 6$, find the value of x .

. BECA / Mr. Huson / Geometry Triangle Sums 12/16/2014

- | | |
|---------|-----|
| 1. | |
| Answer: | 50 |
| 2. | |
| Answer: | 20 |
| 3. | |
| Answer: | 10 |
| 4. | |
| Answer: | 110 |
| 5. | |
| Answer: | 100 |
| 6. | |
| Answer: | 70 |
| 7. | |
| Answer: | 22 |
| 8. | |
| Answer: | 35 |
| 9. | |
| Answer: | 21 |
| 10. | |
| Answer: | 30 |