

January 20, 2016

Today we will review for your quiz over angle relationships and triangle theorems.

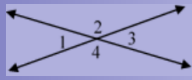
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Homework Answers:

1. 74° 2. 48° 3. 66° & 57° 4. 24° & 78°
 5. $x=8$ 6. $x=22.5$ 7. $\angle TRU=33^\circ$ 8. $\angle KJM=50^\circ$
 9. The largest possible base angle is 44°

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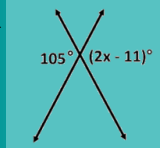
1. If two angles add up to 180° they are supplementary angles.
 2. If two angles add up to 90° , they are complementary angles.
 3. In the diagram shown, $\angle 1$ has a measure of 60° . Find the $m\angle 2$ and $m\angle 3$.

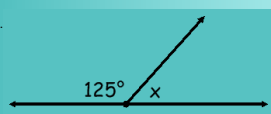


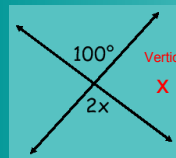
$m\angle 2 = \underline{120}$
 $m\angle 3 = \underline{60}$

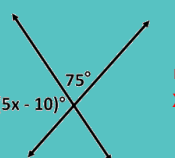
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For each, state the angle relationship and solve for x.

4.  Vertical Angles
 $x = \underline{58^\circ}$

5.  Linear Pair
 $x = \underline{55^\circ}$

6.  Vertical Angles
 $x = \underline{50^\circ}$

7.  Linear Pair
 $x = \underline{23^\circ}$

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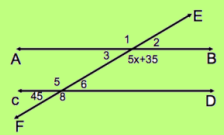
8. The measure of an angle is 30 more than its complement. Find the measure of the angle and its complement.
 $\underline{60^\circ}$ and $\underline{30^\circ}$

9. The measure of an angle is $\frac{2}{3}$ the measure of its supplement. Find the angle.
 $\underline{72^\circ}$ and $\underline{108^\circ}$

10. The measure of an angle is 18 less than 2 times the measure of its supplement. Find the measure of the angle and its supplement.
 $\underline{114^\circ}$ and $\underline{66^\circ}$

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AB // CD and are cut by transversal EF.



11. $m\angle 1 = \underline{135^\circ}$ 14. $m\angle 5 = \underline{135^\circ}$
 12. $m\angle 2 = \underline{45^\circ}$ 15. $m\angle 6 = \underline{45^\circ}$
 13. $m\angle 3 = \underline{45^\circ}$ 16. $m\angle 8 = \underline{135^\circ}$

What type of angles are the following:

17. $\angle 1$ & $\angle 8$ Alternate Exterior 20. $\angle 2$ & $\angle 8$ Same Side Exterior
 18. $\angle 2$ & $\angle 6$ Corresponding 21. $\angle 1$ & $\angle 5$ Corresponding
 19. $\angle 3$ & $\angle 5$ Same Side Interior 22. $\angle 3$ & $\angle 6$ Alternate Interior

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22. If $m\angle 1 = x + 7$, $m\angle 2 = 2y + 71$, and $m\angle 4 = 2y + 131$ in the given diagram, find $m\angle 4$.

56°

24. Find the missing angles.

$x = 21$ $y = 48$

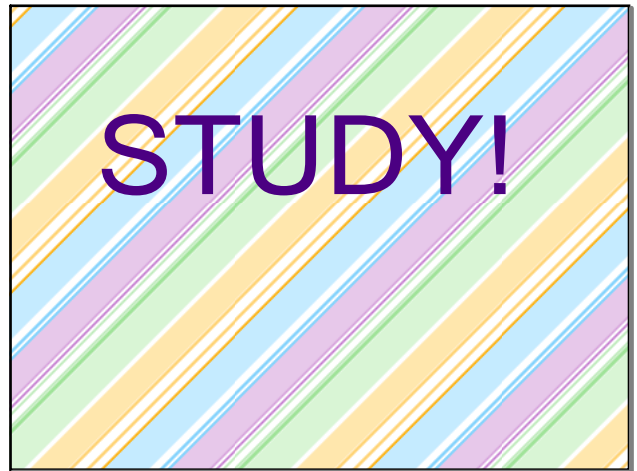
25. Find the base angles of the isosceles triangle.

Base Angles = 65°

26. Two angles of a triangle have equal measures, but the third angle's measure is 36° less than the sum of the other two. Find the measure of each angle of the triangle.

**Base Angles = 54°
Vertex Angle = 72°**

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