

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	
	1 Find the midpoint of \overline{AB} where A has coordinates $(4, 5)$ and B has coordinates $(-2, -3)$.	2 What is the y -intercept of the line through $(7, 30)$ and perpendicular to the line through the points $(4, -6)$ and $(-12, -2)$.	3 Find the y -intercept of the perpendicular bisector of \overline{AB} with endpoints $A(13, 4)$ and $B(7, -8)$.	4 $\angle VMA$ and $\angle AMK$ form a linear pair. Find the value of x if $m\angle VMA = 10x + 11$ and $m\angle AMK = 18x + 57$	5 Use Figure #5 on the back. Find the value of x if $m\angle 6 = 9x + 40$ and $m\angle 7 = 16x + 15$.	6 \overline{BD} is the angle bisector of $\angle ABC$. Find the value of x if $m\angle ABD = 6x + 44$ and $m\angle CBD = 8(x + 4)$.	
7 A is in the interior of $\angle LTQ$. Find the value of x if $m\angle LTA = 49^\circ$, $m\angle LTQ = 12x - 70$, and $m\angle ATQ = -x - 28$.	8 G bisects \overline{AL} . If $GL = 4x - 18$ and $AL = 3x + 4$, what is the value of x ?	9 Use Figure #5 on the back. Find the value of x if $m\angle 1 = 4(x + 8)$ and $m\angle 7 = 2x + 50$.	10 Use Figure #5 on the back. Find the value of x if $m\angle 4 = 4x - 5$ and $m\angle 5 = 5(2x + 9)$.	11 Use Figure #11 on the back. Find the value of x .	12 Use Figure #12 on the back. Find the area of the triangle.	13 Use Figure #13 on the back. Find x .	
14 Find the coordinates of Z , the midpoint of \overline{BE} with endpoints $B(-1, -1)$ and $E(3, 9)$.	15 The measures of the angles in a certain triangle are in the ratio 1:5:6. Find the measure of the smallest angle.	16 In $\triangle ABC$, $m\angle A = 7x - 32$, $m\angle B = 3x + 4$, and the exterior angle at C has measure $12(x - 5)$. Find the value of x .	17 Find the slope of the line perpendicular to the line through the points $(21, 11)$ and $(4, 12)$.	18 In a certain triangle, the largest angle is 6 times the smallest. The third angle is 18 less than 4 times the smallest. What is the measure of the smallest angle?	19 Use Figure #19 on the back. A right triangle has legs 82 ft. & 22 ft. How much shorter is it to walk straight from B to A than to walk first from B to C and then to A ?	20 Find the point L on \overline{EK} , with endpoints $E(-1, 5)$ and $K(6, -\frac{20}{3})$, such that $EL:LK = 3:4$.	
21 A is between D and R on \overline{DR} . Find DA if $RA = 3x - 4$, $DA = 3x + 9$, and $DR = 10x - 11$.	22 Find the distance between the points $(13, 5)$ and $(-4, -9)$. Round your answer to the nearest whole number.	23 Alice buys a 48" HDTV with a 16:9 aspect ratio. About how long is the shortest side of the TV? Round your answer to the nearest tenth at each step.	24 Find the y -intercept of the line through $(-2, 12)$ that is parallel to the line through $(3, 9)$ and $(-1, -15)$.	25 C is the midpoint of \overline{AB} . Find the length of \overline{AB} if $AC = 4x - 7.5$ and $AB = 3x + 10$.	26 Use Figure #26 on the back. First, find the value of x . Then find the value of the expression $x^2 - 24x + 154$ at that x -value.	27 $\triangle RCA$ has vertices $R(-4, -11)$, $C(6, -10)$, and $A(13, 10)$. To the nearest whole number, what is the length of \overline{RA} ?	
28 Find the y -intercept of the line parallel to $y = 4x - 8$ through the points $(-3, 16)$ and $(6, 52)$.	29 A certain polygon has an interior angle sum of 4860° . How many sides does the polygon have?	<h1 style="color: red; font-family: cursive;">GEOMETRY</h1> <h1 style="color: red; font-family: cursive;">FEBRUARY 2016</h1>				<ul style="list-style-type: none"> Remember that if the answer you get is different from the date... you need to try the problem again! Do not leave any question blank. If you don't know how to solve it... ask for help! Show all your work! The process is more important than the answer. 	

Figure #5

In this figure, $r \parallel s$.

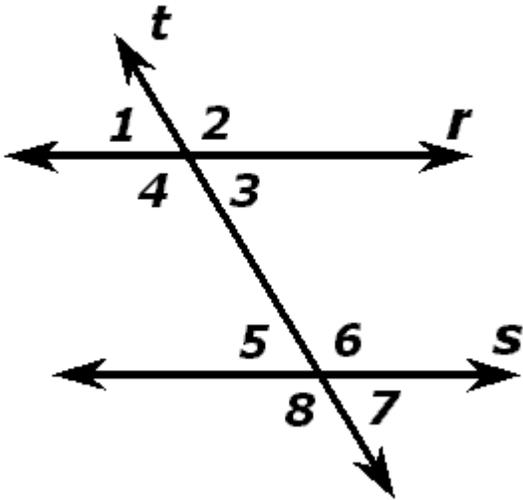


Figure #26

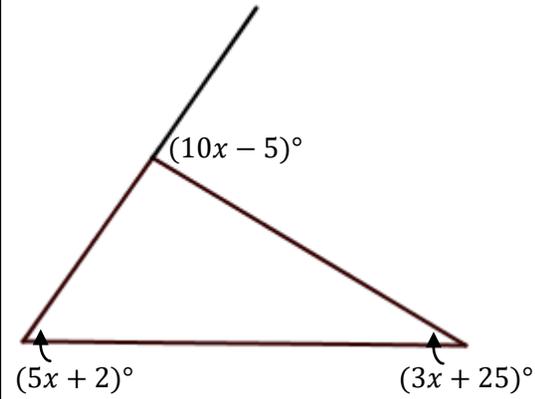


Figure #19

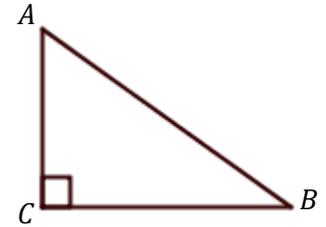


Figure #12

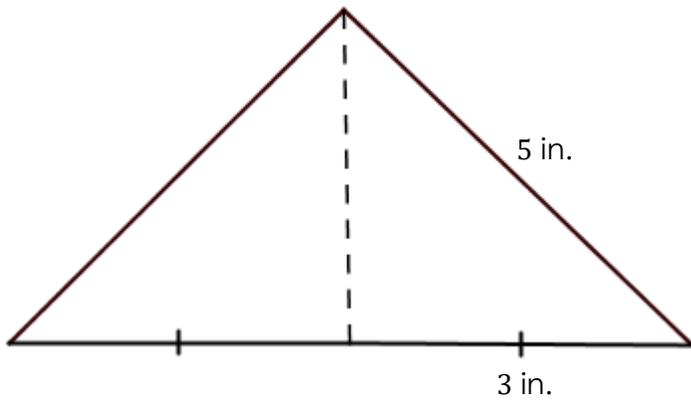


Figure #13

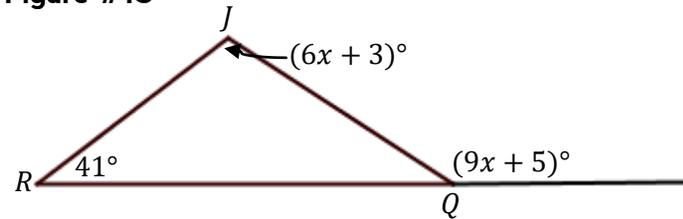


Figure #11

