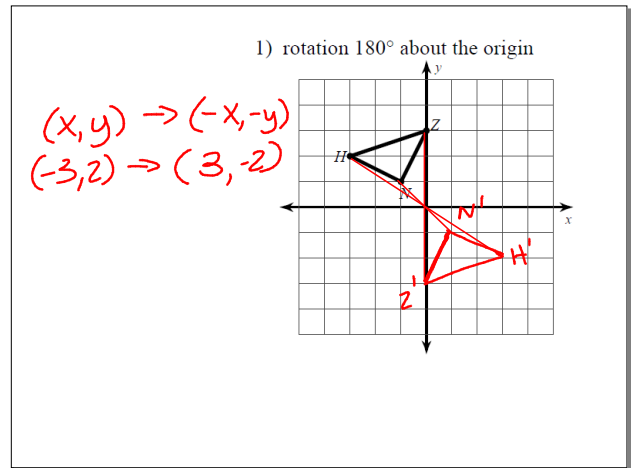


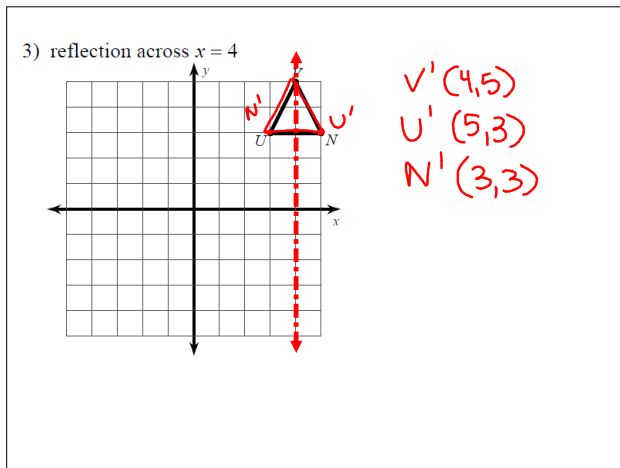
Geometry A Review

January 4, 2012

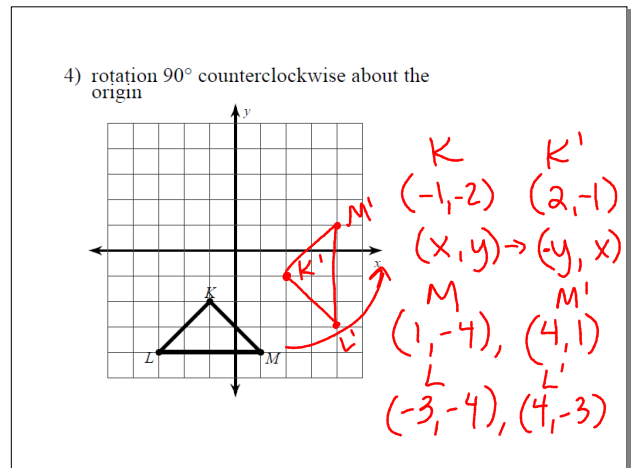
Jan 4-7:53 AM



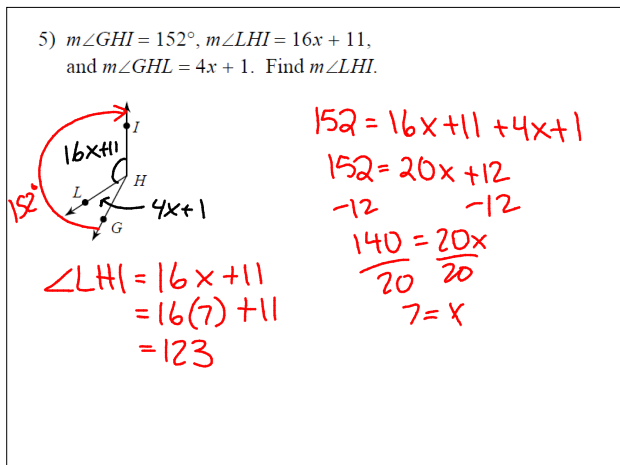
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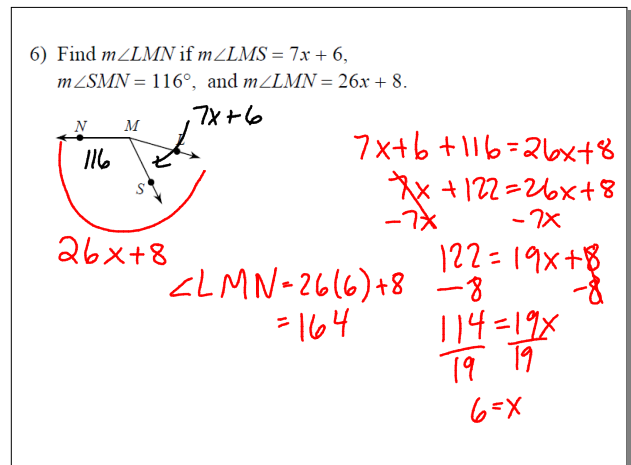
Jan 4-7:57 AM



Jan 4-7:57 AM



Jan 4-7:58 AM



Jan 4-7:58 AM

7)

$360 = x - 22 + 102 + 4x$ $360 - 102 = x - 22 + 4x$
 $360 = 5x + 80$
 $-80 \quad -80$
 $280 = 5x$
 $\frac{280}{5} = \frac{5x}{5}$
 $56 = x$

Jan 4-7:58 AM

9)

$2x + 1 = 121$
 $-1 \quad -1$
 $2x = 120$
 $\frac{2x}{2} = \frac{120}{2}$
 $x = 60$

Jan 4-8:01 AM

11)

$3x + 1 = 40$
 $-1 \quad -1$
 $3x = 39$
 $\frac{3x}{3} = \frac{39}{3}$
 $x = 13$

Jan 4-8:02 AM

12)

$50 + 138 + x = 180$
 $188 + x = 180$
 $-188 \quad -188$
 $x = -8$

Jan 4-8:02 AM

13)

$17x + 11 = 18x + 4$
 $-17x \quad -17x$
 $11 = x + 4$
 $-4 \quad -4$
 $7 = x$

Jan 4-8:03 AM

15)

$50 + 22x - 2 = 180$
 $22x + 48 = 180$
 $-48 \quad -48$
 $22x = 132$
 $\frac{22x}{22} = \frac{132}{22}$
 $x = 6$

Jan 4-8:03 AM

Find the midpoint of the line segment with the given endpoints.

16) (9, 10), (4, -4) 17) (-4, -2), (8, 10)

midpoint: $\left(\frac{x_1+x_2}{2}, \frac{y_1+y_2}{2}\right)$

$\left(\frac{9+4}{2}, \frac{10+(-4)}{2}\right)$ $\left(\frac{-4+8}{2}, \frac{-2+10}{2}\right)$

$(6.5, 3)$ $(2, 4)$

Jan 4-8:03 AM

Find the distance between each pair of points. Round your answer to the nearest tenth, if necessary.

18) (-6, -4), (6, 2) 19) (-5, -3), (-7, 3)

$d = \sqrt{(x_2-x_1)^2 + (y_2-y_1)^2}$

$d = \sqrt{(6+6)^2 + (2+4)^2}$ $d = \sqrt{(-7+5)^2 + (3+3)^2}$

$d = \sqrt{(12)^2 + (6)^2}$ $d = \sqrt{(-2)^2 + (6)^2}$

$= \sqrt{144+36}$ $= \sqrt{4+36}$

$= \sqrt{180}$ $= \sqrt{40}$

≈ 13.4 ≈ 6.3

Jan 4-8:03 AM

20)

$39 + 8x + 7 + ? = 180$

$16x - 2 + ? = 180$

$39 + 8x + 7 = 16x - 2$

$8x + 46 = 16x - 2$

$+2$

$8x + 48 = 16x$

$-8x$

$48 = 8x$

$\frac{48}{8} = \frac{8x}{8}$

$x = 6$

Jan 4-8:04 AM

21)

$4x + 10 + 70 = 13x - 10$

$4x + 80 = 13x - 10$

$+10$

$4x + 90 = 13x$

$-4x$

$90 = 9x$

$\frac{90}{9} = \frac{9x}{9}$

$10 = x$

Jan 4-8:04 AM

22) $m\angle 2 = x + 49$

$180 = 69 + 69 + x + 49$

$180 = x + 187$

-187

-187

$-7 = x$

Jan 4-8:04 AM

23) $m\angle 2 = 7x + 4$

$7x + 4 = 60$

-4

-4

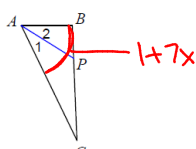
$7x = 56$

$\frac{7x}{7} = \frac{56}{7}$

$x = 8$

Jan 4-8:04 AM

24) $m\angle 1 = 4x - 4$ and $m\angle CAB = 1 + 7x$.
Find x .



$4x - 4 = \frac{1}{2}(1 + 7x)$

$$2(4x - 4) = 1 + 7x$$

$$8x - 8 = 1 + 7x$$

$$\begin{array}{r} -7x \\ -7x \end{array}$$

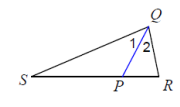
$$x - 8 = 1$$

$$\begin{array}{r} +8 \\ +8 \end{array}$$

$$\boxed{x = 9}$$

Jan 4-8:04 AM

25) $m\angle 1 = 3 + 12x$ and $m\angle SQR = 25x + 3$.
Find x .



$2(3 + 12x) = 25x + 3$

$$6 + 24x = 25x + 3$$

$$\begin{array}{r} -24x \\ -24x \end{array}$$

$$6 = x + 3$$

$$\begin{array}{r} -3 \\ -3 \end{array}$$

$$\boxed{3 = x}$$

Jan 4-8:04 AM

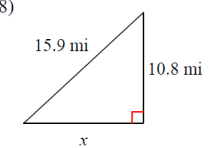
Two sides of a triangle have the following measures. Find the range of possible measures for the third side.

26) 8, 9 27) 11, 7

$1 < x < 17$ $4 < x < 18$

Jan 4-8:05 AM

28)



$a^2 + b^2 = c^2$

$$10.8^2 + x^2 = 15.9^2$$

$$\begin{array}{r} 116.64 + x^2 = 252.81 \\ -116.64 \\ -116.64 \end{array}$$

$$\sqrt{x^2} = \sqrt{136.17}$$

$$\boxed{x = 11.7}$$

Jan 4-8:05 AM