

**Problem 2:**

Given: MOPR is a square with

$MK = y - 16$  and  $\angle MKO = (2y - 4)^\circ$

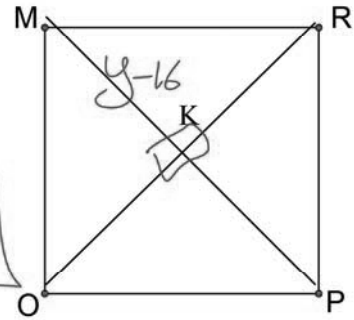
Find the  $OK + KR$ .

$2y - 4 = 90$

$2y = 94$

$y = 47$

$OK = 31$   
 $OK + KR = 62$



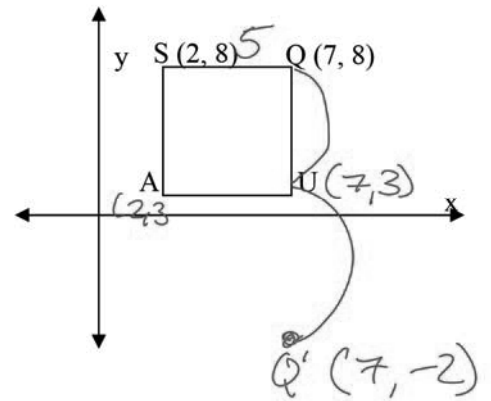
**Problem 3:**

a. If SQUA is a square with  $S(2, 8)$  and  $Q(7, 8)$ , find the area of SQUA.

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b. If SQUA is reflected over  $\overline{AU}$ , find the coordinates of the new location of Q.

$(7, -2)$



**Problem 4:** Given:  $\overline{DE} \cong \overline{DG}$ ,

$EF = 10x + 20$

$GF = 20x + 10$

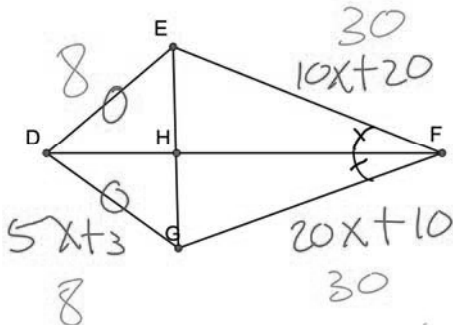
$DG = 5x + 3$

Find: perimeter of kite DEFG = 76

$10x + 20 = 20x + 10$

$10 = 10x$

$1 = x$



**Problem 5** Given: KITE is a kite. If  $KI = x^2 - 3x$ ,  
 $KE = 2x + 36$ , and  $IT = 3x^2$ .  
 $KE = KI$

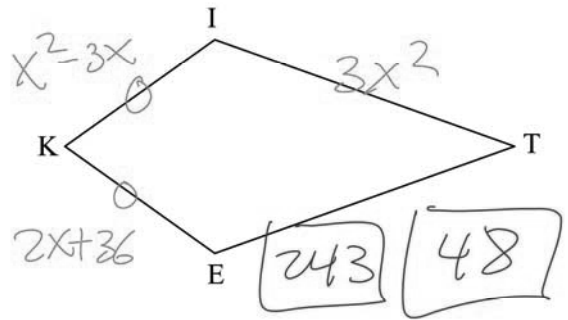
Find: ET

$$x^2 - 3x = 2x + 36$$

$$x^2 - 5x - 36 = 0$$

$$(x - 9)(x + 4) = 0$$

$$x = 9 \quad x = -4$$



**Problem 6** Given: BLUE is a kite.  $EB = x + 3$ ,  $BL = x + 4$ ,  
 $UL = 2x - 1$ , and  $EU = 3x - y$ .

Solve for  $x$  and  $y$ . What is the perimeter of the kite?

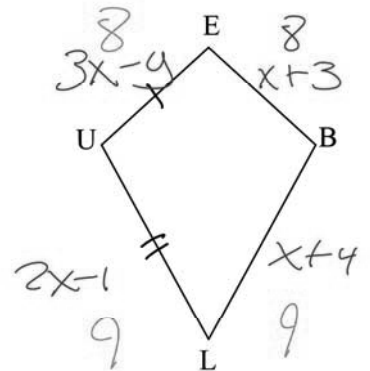
$$2x - 1 = x + 4$$

$$x = 5$$

$$5 - y = 8$$

$$-y = -7$$

$$y = 7$$



$$P: 34 \text{ units}$$

**Problem 7** Given: BDEG is a rectangle  
 ABCD is a rhombus  
 Find: Measure of the indicated angles

- |  |   |
|--|---|
| a.) $\angle GDB = \underline{27^\circ}$  | b.) $\angle ABC = \underline{54^\circ}$ |
| c.) $\angle DAB = \underline{126^\circ}$ | d.) $\angle BCG = \underline{54^\circ}$ |
| e.) $\angle GCE = \underline{126^\circ}$ | f.) $\angle DEG = \underline{90^\circ}$ |
| g.) $\angle AHB = \underline{90^\circ}$  | h.) $\angle DGB = \underline{63^\circ}$ |

