


Solving equations Variables on both sides math 9 Name: _____

The following equations will all work out to integers, the you get to connect the dots

$$5x + 6 = 2x + 15$$

$$x = 3$$

Work 

$$7x - 4 = 20 + 3x$$

$$x = 6$$

$$2x + 15 = 43 - 5x$$


$$x = 4$$

$$3 + 4x = 9x + 13$$

$$x = -2$$

$$2x - 10 = 44 + 8x$$

$$x = -9$$

Work 

$$-7x - 2 = 24 - 9x$$

$$x = 13$$

$$27 - 11x = x - 33$$


$$x = 5$$

$$21x + 6 = 17x - 26$$

$$x = -8$$

$$11x = 8x - 6$$

$$x = -2$$

Work 

$$-x - 29 = 13 + 2x$$

$$x = -14$$

$$-18 + 5x = -12x - 1$$

$$x = 1$$

$$-9x - 21 = 35 - x$$

$$x = -7$$

$$7x - 2 = -2x - 29$$

$$x = -3$$

$$36 + 15x = 17x$$

$$x = 18$$

$$-15 - 4x = 6 - 3x$$

$$x = -21$$

$$12x - 9 = 8x - 37$$


$$x = -7$$

$$-5x + 40 = 6x - 70$$

$$x = 10$$

Connect the dots in the order you solved the equations. Connect last dot to first



Super _____ !!


2) Now the following equations need to be answered as fractions in simplest form

$$9x + 14 = 12x + 8$$

$$x = 2$$

$$-17x + 5 = -4x + 12$$

$$x = \frac{-7}{13}$$

$$20 - 3x = 17 - 5x$$

$$x = \frac{-3}{2}$$

$$22 + 6x = 9x + 33$$

$$x = \frac{-11}{3}$$

$$20x - 54 = 80 - 4x$$

$$x = \frac{67}{12}$$

$$18x + 65 = 13x - 23$$

$$x = \frac{-88}{5}$$

$$24x + 12 - 3x = 2x + 66$$

$$x = \frac{54}{19}$$

$$45x + 81 = 5x + 27$$

$$x = \frac{-27}{20}$$

$$9x - 6x + 12 = 17 - 5x$$

$$x = \frac{5}{8}$$

$$18 - 6x + 14 = 19 + 4x + 26$$

$$x = \frac{-13}{10}$$

$$64 - 2x + 8 = 15x + 9$$

$$x = \frac{63}{17}$$

$$-86 + 7x + 56 = 24 - 3x$$

$$x = \frac{27}{5}$$

$$12 + 7x = 5x - 22$$

$$x = -17$$

$$17x - 34 = 19 + 7x$$

$$x = \frac{53}{10}$$

$$9x - 12x + 14 = 3 - 5x$$

$$x = \frac{-11}{2}$$

Extend your skills and strive for excellence!up for a challenge??

$$\text{Solve for } x: 13x + 12 - 17x + 3 - 14x + 19x - 54 + 60 = -6x + 13 - 35x - 98x + 120 - 7x + 14 - 134$$

$$x = \frac{-8}{147}$$