

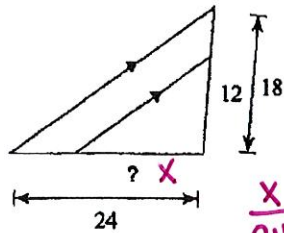
Proportional Parts + midsegments  
Assignment

Name Key! ID: 1

Date \_\_\_\_\_ Period \_\_\_\_\_

Find the missing length indicated.

1)

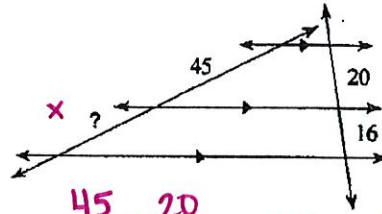


$$\frac{x}{24} = \frac{12}{18}$$

$$18x = 288$$

$$x = 16$$

2)



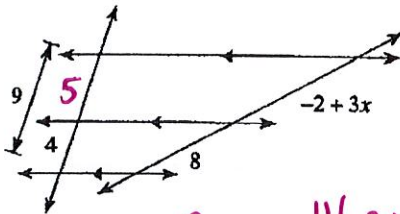
$$\frac{45}{x} = \frac{20}{16}$$

$$20x = 720$$

$$x = 36$$

Solve for x.

3)



$$\frac{4}{5} = \frac{8}{-2+3x}$$

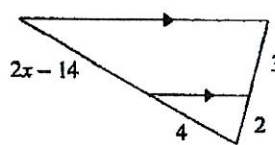
$$4(-2+3x) = 40$$

$$-8 + 12x = 40$$

$$+12x = 48$$

$$x = 4$$

4)



$$\frac{3}{2} = \frac{2x-14}{4}$$

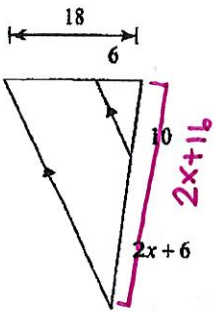
$$2(2x-14) = 12$$

$$4x - 28 = 12$$

$$4x = 40$$

$$x = 10$$

5)



$$\frac{6}{18} = \frac{10}{2x+6}$$

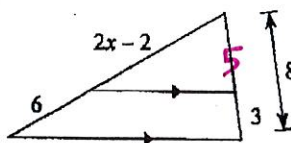
$$180 = 6(2x+6)$$

$$180 = 12x + 36$$

$$12x = 144$$

$$x = 12$$

6)



$$\frac{6}{2x-2} = \frac{3}{5}$$

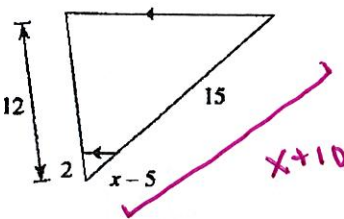
$$3(2x-2) = 30$$

$$6x - 6 = 30$$

$$6x = 36$$

$$x = 6$$

7)



$$\frac{2}{12} = \frac{x-5}{x+10}$$

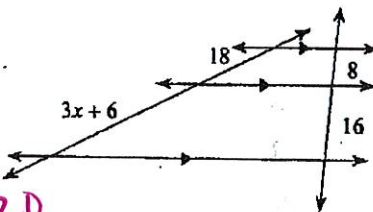
$$12(x-5) = 2(x+10)$$

$$12x - 60 = 2x + 20$$

$$10x = 80$$

$$x = 8$$

8)



$$\frac{18}{3x+6} = \frac{8}{16}$$

$$3x+6 = 36$$

$$3x = 30$$

$$x = 10$$