Worksheet

09/16/2020

Free on dw-math.com

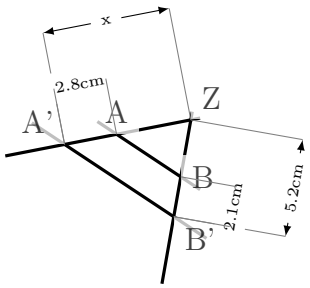
Problem quickname: 8979

1)

Quick: 8979

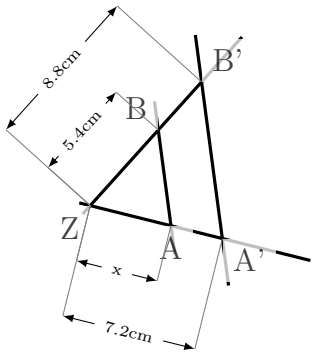
Specify the length of the line segment marked "x". Apply the intercept theorems.

a)



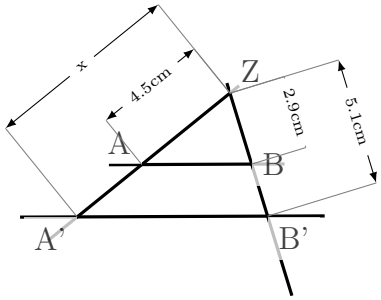
1. $\frac{|AA'|}{|BB'|} = \frac{|ZA'|}{|ZB'|}$
1a. $\frac{2.8}{2.1} = \frac{x}{5.2}$
2. $x = \frac{2.8 \cdot 5.2}{2.1}$
3. $x = 6.8$

b)



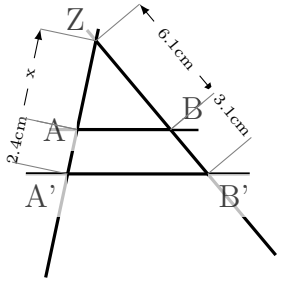
1. $\frac{|ZA'|}{|ZA|} = \frac{|ZB'|}{|ZB|}$
1a. $\frac{7.2}{x} = \frac{8.8}{5.4}$
2. $x = \frac{5.4 \cdot 7.2}{8.8}$
3. $x = 4.4$

c)



1. $\frac{|ZA|}{|ZA'|} = \frac{|ZB|}{|ZB'|}$
1a. $\frac{4.5}{x} = \frac{2.9}{5.1}$
2. $x = \frac{5.1 \cdot 4.5}{2.9}$
3. $x = 7.8$

d)



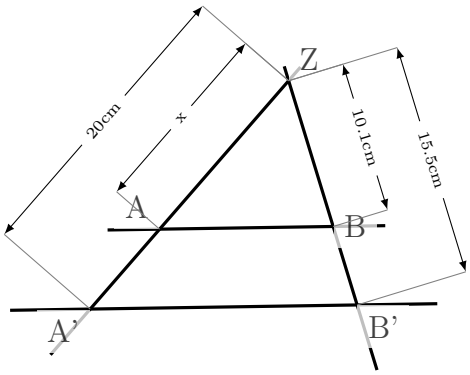
1. $\frac{|AA'|}{|ZA|} = \frac{|BB'|}{|ZB|}$
1a. $\frac{2.4}{x} = \frac{3.1}{6.1}$
2. $x = \frac{6.1 \cdot 2.4}{3.1}$
3. $x = 4.8$

2)

Quick: 8979

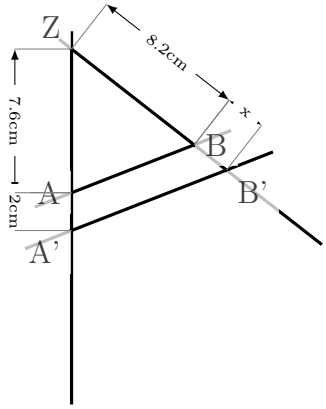
Specify the length of the line segment marked "x". Apply the intercept theorems.

a)



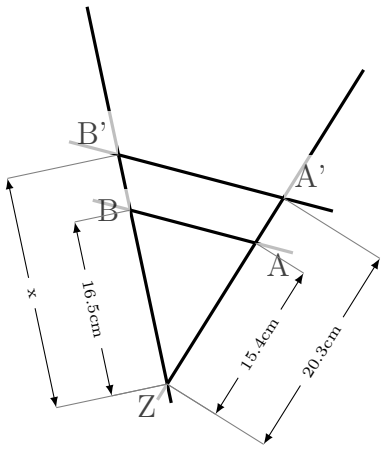
1. $\frac{|ZA|}{|ZA'|} = \frac{|ZB|}{|ZB'|}$
1a. $\frac{x}{20} = \frac{10.1}{15.5}$
2. $x = \frac{10.1 \cdot 20}{15.5}$
3. $x = 13$

b)



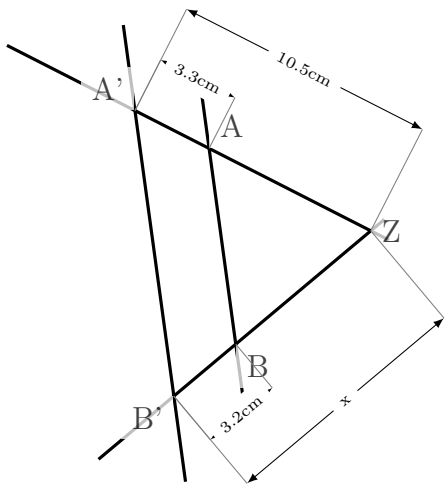
1. $\frac{|BB'|}{|AA'|} = \frac{|ZB|}{|ZA|}$
1a. $\frac{x}{2} = \frac{8.2}{7.6}$
2. $x = \frac{8.2 \cdot 2}{7.6}$
3. $x = 2.2$

c)



1. $\frac{|ZA|}{|ZB|} = \frac{|ZA'|}{|ZB'|}$
1a. $\frac{15.4}{16.5} = \frac{20.3}{x}$
2. $x = \frac{16.5 \cdot 20.3}{15.4}$
3. $x = 21.7$

d)



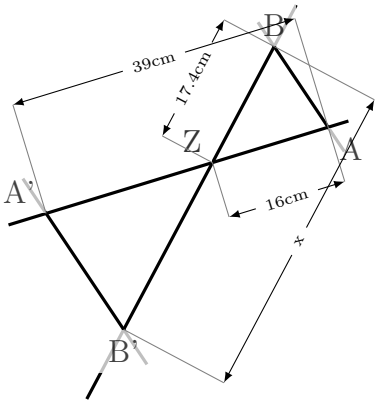
1. $\frac{|BB'|}{|AA'|} = \frac{|ZB'|}{|ZA'|}$
1a. $\frac{3.2}{3.3} = \frac{x}{10.5}$
2. $x = \frac{3.2 \cdot 10.5}{3.3}$
3. $x = 10.2$

3)

Quick: 8979

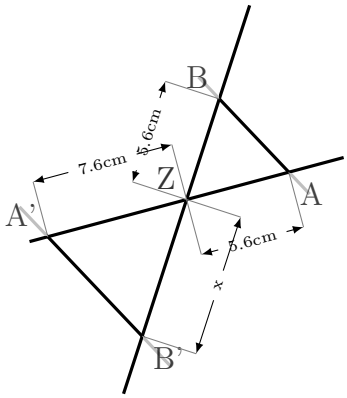
Specify the length of the line segment marked "x". Apply the intercept theorems.

a)



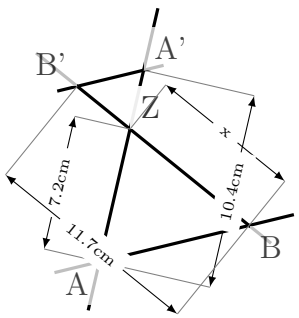
1. $\frac{|AA'|}{|ZA|} = \frac{|BB'|}{|ZB|}$
1a. $\frac{39}{16} = \frac{x}{17.4}$
2. $x = \frac{39 \cdot 17.4}{16}$
3. $x = 42.4$

b)



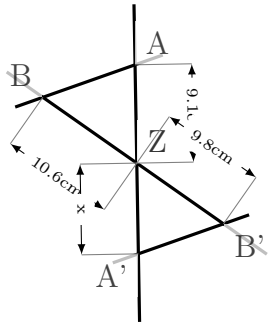
1. $\frac{|ZA'|}{|ZA|} = \frac{|ZB'|}{|ZB|}$
1a. $\frac{7.6}{5.6} = \frac{x}{5.6}$
2. $x = \frac{7.6 \cdot 5.6}{5.6}$
3. $x = 7.6$

c)



1. $\frac{|ZA|}{|AA'|} = \frac{|ZB|}{|BB'|}$
1a. $\frac{7.2}{10.4} = \frac{x}{11.7}$
2. $x = \frac{7.2 \cdot 11.7}{10.4}$
3. $x = 8.1$

d)



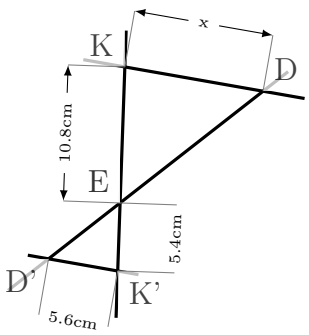
1. $\frac{|ZA'|}{|ZA|} = \frac{|ZB'|}{|ZB|}$
1a. $\frac{x}{9.1} = \frac{9.8}{10.6}$
2. $x = \frac{9.8 \cdot 9.1}{10.6}$
3. $x = 8.4$

4)

Quick: 8979

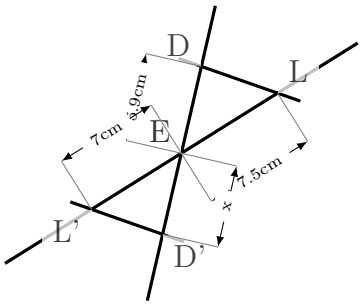
Specify the length of the line segment marked "x". Apply the intercept theorems.

a)



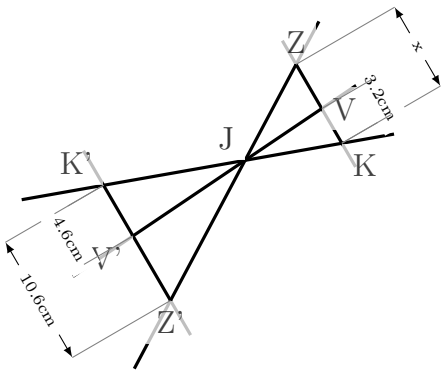
1. $\frac{|D'K'|}{|DK|} = \frac{|EK'|}{|EK|}$
1a. $\frac{5.6}{x} = \frac{5.4}{10.8}$
2. $x = \frac{10.8 \cdot 5.6}{5.4}$
3. $x = 11.1$

b)



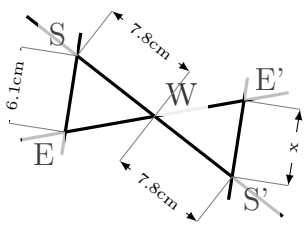
1. $\frac{|EL|}{|EL'|} = \frac{|ED|}{|ED'|}$
1a. $\frac{7.5}{7} = \frac{5.9}{x}$
2. $x = \frac{7 \cdot 5.9}{7.5}$
3. $x = 5.5$

c)



1. $\frac{|KV|}{|K'V'|} = \frac{|KZ|}{|K'Z'|}$
1a. $\frac{3.2}{4.6} = \frac{x}{10.6}$
2. $x = \frac{3.2 \cdot 10.6}{4.6}$
3. $x = 7.2$

d)



1. $\frac{|SE|}{|S'E'|} = \frac{|WS|}{|WS'|}$
1a. $\frac{6.1}{x} = \frac{7.8}{7.8}$
2. $x = \frac{7.8 \cdot 6.1}{7.8}$
3. $x = 6.1$

Good Luck!