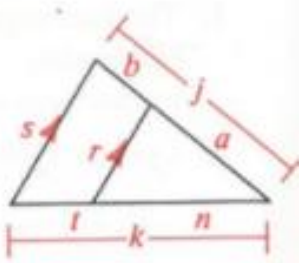
Homework #68
WE: Pages 272 - 274
#1 - 11 all, 20 - 25 all
Self-Test 2

Written Exercises

A **1.** Tell whether the proportion is correct.

a. $\frac{r}{s} = \frac{a}{b}$ **No** **b.** $\frac{j}{a} = \frac{s}{r}$ **Yes** **c.** $\frac{a}{b} = \frac{n}{t}$ **Yes**

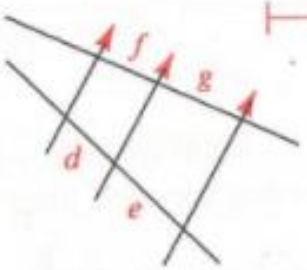
d. $\frac{t}{k} = \frac{a}{j}$ **No** **e.** $\frac{r}{s} = \frac{n}{k}$ **Yes** **f.** $\frac{b}{j} = \frac{t}{k}$ **Yes**



2. Tell whether the proportion is correct.

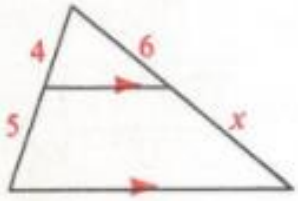
a. $\frac{d}{f} = \frac{g}{e}$ **No** **b.** $\frac{f}{g} = \frac{e}{d}$ **No**

c. $\frac{g}{f} = \frac{e}{d}$ **Yes** **d.** $\frac{d}{f} = \frac{e}{g}$ **Yes**

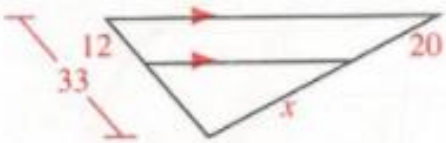


Find the value of x.

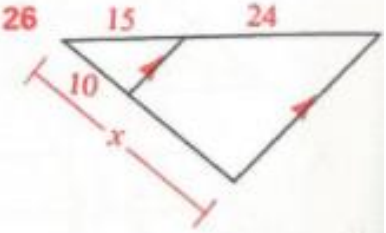
3. **7.5**



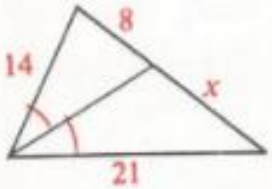
4. **35**



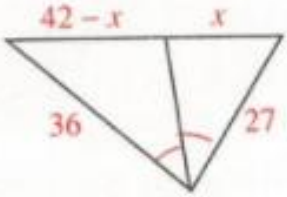
5. **26**



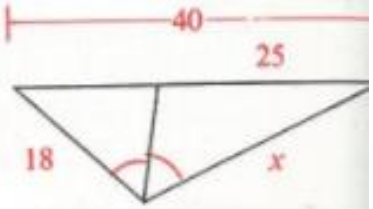
6. **12**



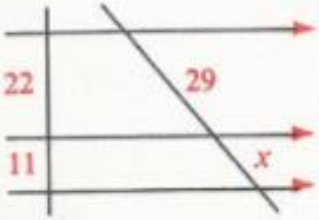
7. **18**



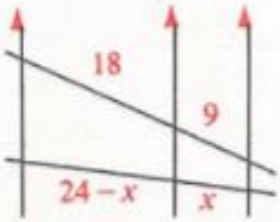
8. **30**



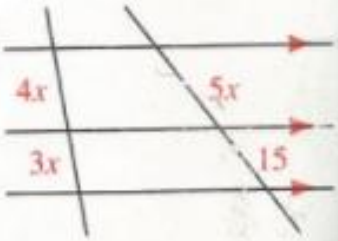
9. **14.5**



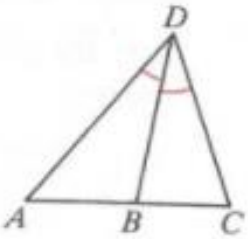
10. **8**



11. **4**



Complete.



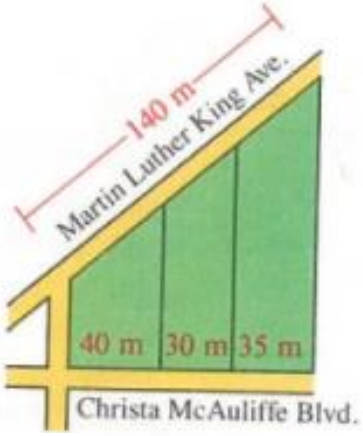
20. $AD = 21$, $DC = 14$, $AC = 25$, $AB =$ ___?___ **15**

21. $AC = 60$, $CD = 30$, $AD = 50$, $BC =$ ___?___ **22.5**

22. $AB = 27$, $BC = x$, $CD = \frac{4}{3}x$, $AD = x$, $AC =$ ___?___ **63**

23. $AB = 2x - 12$, $BC = x$, $CD = x + 5$, $AD = 2x - 4$, $AC =$ ___?___ **78**

24. Three lots with parallel side boundaries extend from the avenue to the boulevard as shown. Find, to the nearest tenth of a meter, the frontages of the lots on Martin Luther King Avenue. **53.3 m, 40 m, 46.7 m**

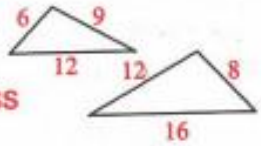


25. The lengths of the sides of $\triangle ABC$ are $BC = 12$, $CA = 13$, and $AB = 14$. If M is the midpoint of $\overline{CA}$, and P is the point where $\overline{CA}$ is cut by the bisector of $\angle B$, find MP. **0.5**

Self-Test 2

State the postulate or theorem you can use to prove that two triangles are similar.

1.

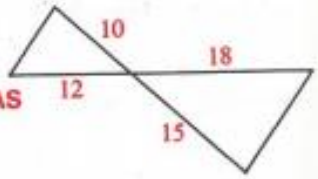


SSS

2.

AA

3.



SAS

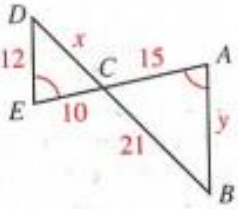
4. Complete.

a. $\triangle ABC \sim$ ___?___ **$\triangle EDC$**

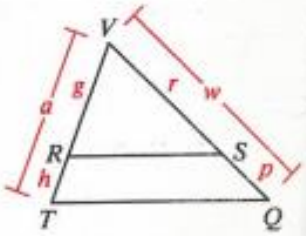
b. $\frac{AB}{?} = \frac{AC}{?} = \frac{BC}{?}$ **ED EC DC**

c. $\frac{15}{?} = \frac{21}{?}$, **10; x**
and $x =$ ___?___ **14**

d. $\frac{15}{?} = \frac{?}{12}$, **10; y**
and $y =$ ___?___ **18**



In the figure, it is given that $\overline{RS} \parallel \overline{TQ}$. Complete each proportion.



5. $\frac{g}{h} = \frac{?}{p}$ **r**

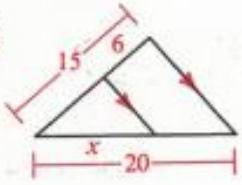
6. $\frac{a}{h} = \frac{w}{?}$ **p**

7. $\frac{r}{g} = \frac{p}{?}$ **h**

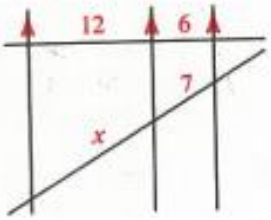
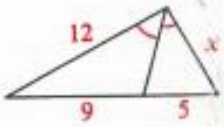
8. $\frac{h}{p} = \frac{?}{w}$ **a**

Find the value of x.

9. **12**



10. **14**



11. **$6\frac{2}{3}$**