

Notes and Practice Work for 7.5

Name:

Hour:

Key

Key Concepts

Theorem 7-4: Side-Splitter Theorem

If a line is parallel to one side of a triangle and intersects the other two sides,

then it divides these sides proportionally

Theorem 7-5: Triangle-Angle-Bisector Theorem

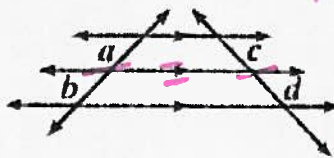
If a ray bisects an angle of a triangle, then

it divides the opposite side into two segments that are proportioned to the other 2 sides

Corollary to Theorem 7-4

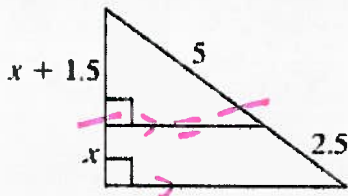
If three parallel lines intersect two transversals, then

the segments intercepted the transversal are proportional



$$\frac{a}{b} = \frac{c}{d}$$

Find the value of the variables



$$\frac{x + 1.5}{x} = \frac{5}{2.5}$$

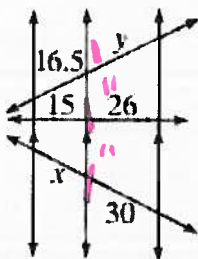
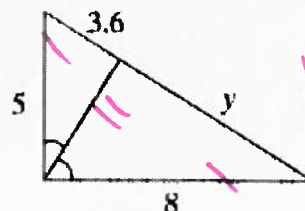
$$2.5x + 3.75 = 5x$$

$$3.75 = 2.5x$$

$$\boxed{x = 1.5}$$

$$\frac{5}{3.6} = \frac{8}{y}$$

$$\boxed{y = 5.76}$$



$$\frac{16.5}{y} = \frac{15}{26} \quad \boxed{y = 28.6}$$

$$\frac{x}{30} = \frac{15}{26}$$

$$450 = 26x$$

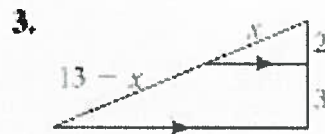
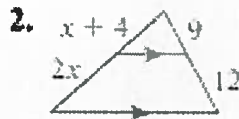
$$\boxed{x \approx 17.3 = \frac{225}{13}}$$

QUIZ: Similar Triangles (7.3, 7.4)

7.5 #s 1-24

See CH 7 Book Answers (online)

x^2 Algebra Solve for x .



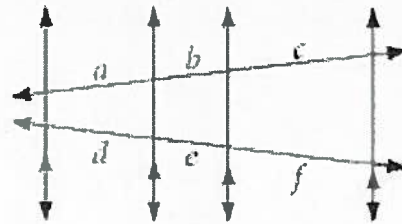
Use the figure at the right to complete each proportion.

4. $\frac{a}{b} = \frac{\square}{e}$

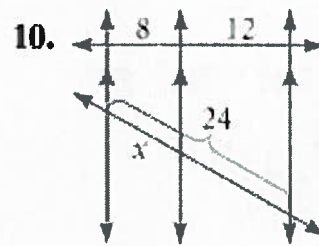
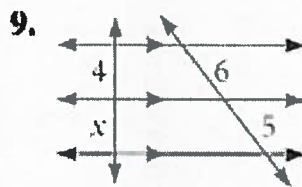
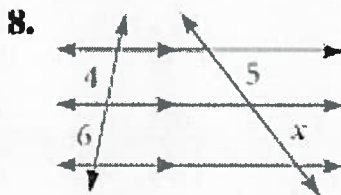
5. $\frac{b}{\square} = \frac{e}{f}$

6. $\frac{f}{e} = \frac{c}{\square}$

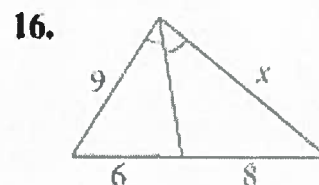
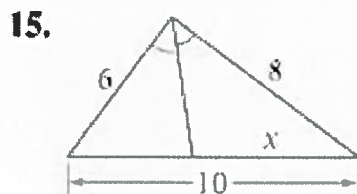
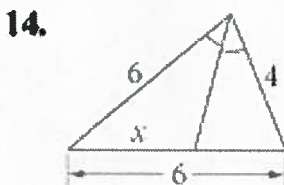
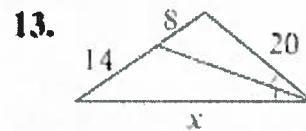
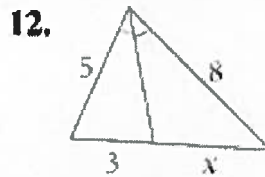
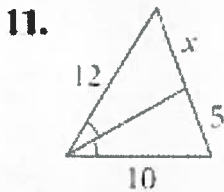
7. $\frac{a}{b+c} = \frac{\square}{e+f}$



x^2 Algebra Solve for x .



x^2 Algebra Solve for x .



Use the figure at the right to complete each proportion.

17. $\frac{RS}{\square} = \frac{JR}{KJ}$

18. $\frac{KJ}{JP} = \frac{KS}{\square}$

19. $\frac{QL}{PM} = \frac{SQ}{\square}$

20. $\frac{PT}{\square} = \frac{TQ}{KQ}$

21. $\frac{KL}{LW} = \frac{\square}{MW}$

22. $\frac{\square}{KP} = \frac{LQ}{KQ}$

23. $\frac{\square}{SQ} = \frac{JK}{KS}$

24. $\frac{KL}{KM} = \frac{\square}{MW}$

