Lesson 75 • Area of a Trapezoid

Power Up

– *Facts*

– *Mental Math*

– *Problem Solving*

New Concepts

– *Examples*

– *Practice Set*

Written Practice

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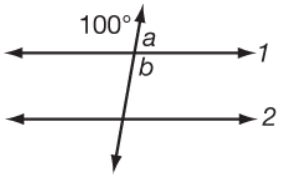
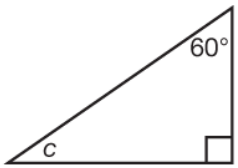
Facts Find the measure of the angle indicated by the letters.

parallel lines 1 and 2

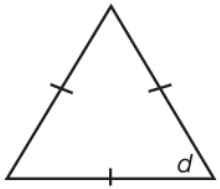


m∠*a* = 80°

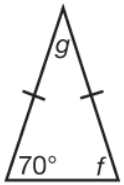
m∠*b* = 100°



m∠*c* = 30°



m∠*d* = 60°



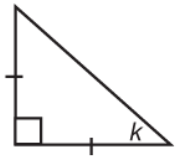
m∠*f* = 70°

m∠*g* = 40°

parallelogram

m∠*h* = 60°

m∠*j* = 120°



m∠*k* = 45°

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Written Practice

1. 800
2. 30%
3. 40
4. $a = 15$, $b = 30$
5. trapezoid; 160 m^2
6. parallelogram; 77 $in.^2$
7. C
8. $x = -23$
9. $x = 2$
10. $r = 44$
11. $x = 3$
12. 8
13. $x = 8$
14. $3\sqrt{5}$
15. $5\sqrt{2}$
16. a. $72\frac{8}{11}\%$
    b. $0.\overline{72}$
    c. 0.727
17. 300%
18. $\frac{7}{10}$ or 0.7

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Written Practice *continued*

19. $\frac{15\ \cancel{mi}}{1\ \cancel{hr}} \cdot \frac{5280\ ft}{1\ \cancel{mi}} \cdot \frac{1\ \cancel{hr}}{60\ \cancel{min}} \cdot \frac{1\ \cancel{min}}{60\ sec}$ = 22 ft per sec

20. yes

21. *a.* $a = 4$, $b = 4$

b. *AAA*

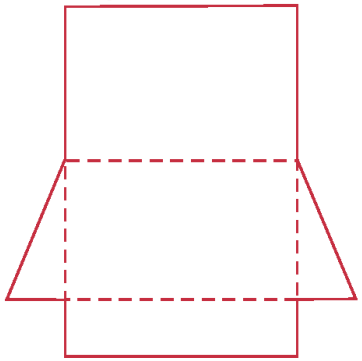
c. isosceles

d. 1.5

22. 2 ft × 1 ft × 0.75 ft; 1.5 ft^3; 8.5 ft^2

23. 57

24. One possible net:



25. This is not an example of direct variation because when one variable is zero, the other is not.

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