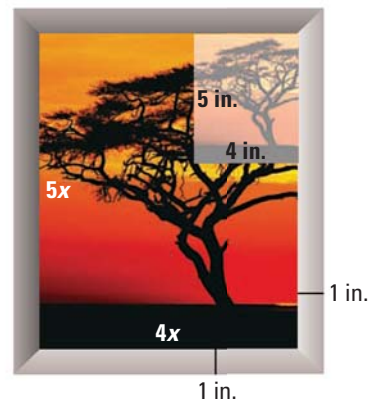


74. **MULTIPLE REPRESENTATIONS** You want to enlarge a 4 inch by 5 inch photo to fit into a 1 inch wide frame that has an outer perimeter of 53 inches.

- Using a Diagram** Write an expression for the outer perimeter of the picture frame.
- Making a Table** Evaluate the perimeter expression when  $x = 1.5, 2, 2.5, 3,$  and  $3.5$ . Make a table of your results. For what value of  $x$  is the perimeter 53 inches?
- Using an Equation** Write and solve an equation to find  $x$ . *Explain* what the value of  $x$  tells you about how much you should enlarge the original photo.



**EXAMPLE 5**

on p. 20  
for Exs. 75–77

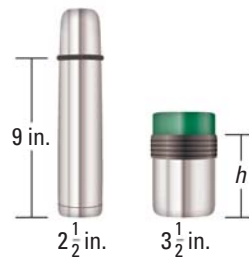
75. **RAKING LEAVES** It takes you 30 minutes to rake the leaves in your yard and it takes your brother 45 minutes. How long does it take the two of you to rake the leaves when working together?
76. **MURAL PAINTING** You paint 2 square yards of a community mural in 3 hours and a friend paints 4 square yards in 5 hours. How long does it take the two of you to paint 11 square yards when working together?

**Animated Algebra** at classzone.com

77. **★ MAKING REASONING** Three students use calligraphy pens to write the names of graduating seniors on their diplomas. One writes 7 names in 6 minutes, another writes 17 names in 10 minutes, and the third writes 23 names in 15 minutes. How long, to the nearest minute, will the students take to write names on 440 diplomas if they work together?

- (A) 97 minutes      (B) 100 minutes      (C) 103 minutes      (D) 290 minutes

78. **CHALLENGE** A cylindrical thermos with an inside diameter of  $2\frac{1}{2}$  inches is filled with liquid to a height of 9 inches. If the liquid is poured into a cylindrical travel mug with an inside diameter of  $3\frac{1}{2}$  inches, what will be the height  $h$  of the liquid?



**TAKS PRACTICE** at classzone.com



**MIXED REVIEW FOR TAKS**

**REVIEW**

TAKS Preparation  
p. 66;  
TAKS Workbook

79. **★ TAKS PRACTICE** Andy is saving money for a digital music player that costs \$350. He makes \$7 per hour as a lifeguard. How many hours must he work to earn enough money to buy the digital music player if he uses a coupon for 20% off? **TAKS Obj. 10**

- (A) 10 h      (B) 25 h      (C) 40 h      (D) 43 h

**REVIEW**

TAKS Preparation  
p. 146;  
TAKS Workbook

80. **★ TAKS PRACTICE** Two runners are running at constant speeds in the same direction around a track. The faster runner travels 8 miles per hour and completes 4 laps each time the slower runner completes 3 laps. What is the slower runner's speed? **TAKS Obj. 9**

- (F) 2 mph      (G) 4 mph      (H) 6 mph      (J) 7 mph

