2 Chris wants to cover a bathroom floor that is 7 feet long and 5 feet wide. The tiles Chris is using are 1-foot squares and come in boxes of 12 tiles for $34.80.

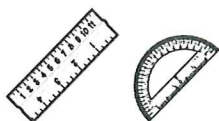How much will it cost for Chris to tile the bathroom floor?

Area of rectangle $= lw$
$= $ length $\times$ width

**Show All Work**

Answer $ _____

3 🖊️ 📐 Use your ruler and protractor to solve this problem.

Bob and Tom followed the directions below to draw a figure.

- Draw line segment AB that is $1\frac{1}{2}$ inches long.

- From point B, draw line segment BC that is $1\frac{1}{2}$ inches long and forms a 70° angle with line segment AB.

- From point C, draw line segment CD that is $1\frac{1}{2}$ inches long and forms a 110° angle with line segment BC.

- From point D, draw line segment DA that is $1\frac{1}{2}$ inches long and forms a 70° angle with line segment CD.

The figures Bob and Tom drew are shown below.
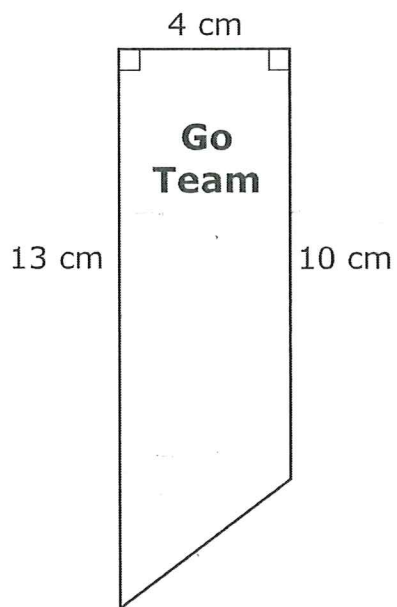
Bob's Drawing
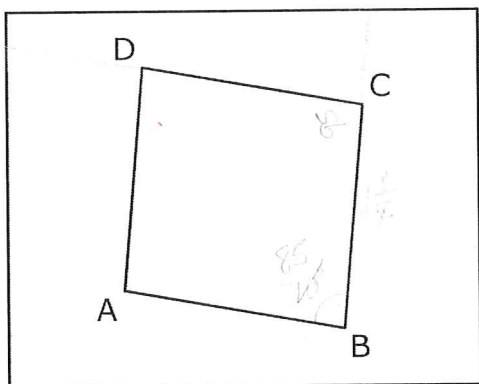
Tom's Drawing
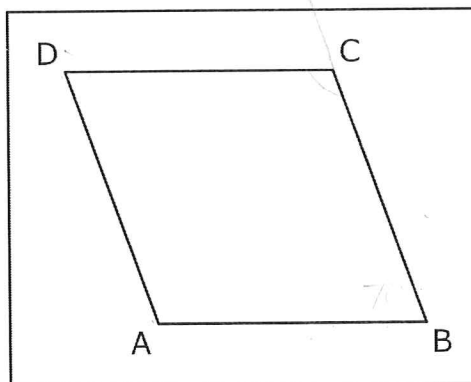
Use words, numbers, or symbols to explain who drew the figure INCORRECTLY. Be sure to use both angle and line measurements from the directions in your explanation.

_____

_____

_____

_____

1 Dalia and Abigail are making ribbons for their soccer team. A diagram of one of the ribbons is shown below.

4 cm

Go
Team

13 cm   10 cm

They need to make a total of 12 ribbons for their team.

What is the TOTAL area, in square centimeters, of the ribbons?

You do not have to use every formula listed to solve this problem.

Area of trapezoid $= \frac{1}{2} h(b_1 + b_2)$

$\qquad\qquad\quad = \frac{1}{2} \times$ height $\times$ (base$_1$ + base$_2$)

Area of triangle $= \frac{1}{2} bh$

$\qquad\qquad\quad = \frac{1}{2} \times$ base $\times$ height

Area of rectangle $= lw$

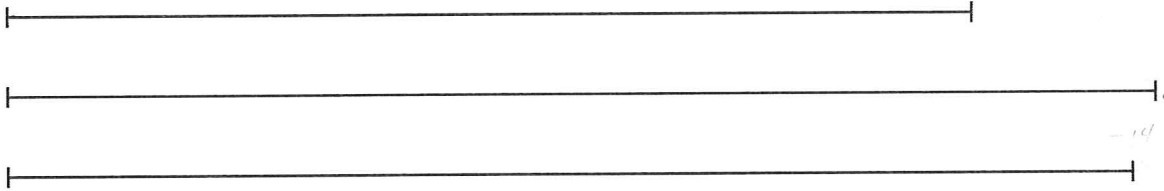$\qquad\qquad\quad = $ length $\times$ width

Show All Work

Answer _____ square centimeters
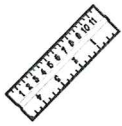
2 Use your ruler to solve this problem.

Lisa makes bracelets to sell at a monthly craft fair. The lines below represent the lengths of 3 bracelets Lisa sold last month.

├───┤

├──┤

├──┤

Lisa sells a bracelet for $9.50 if it is 6 inches long or less. If a bracelet is longer than 6 inches, she sells it for $10.25.

How much did Lisa earn by selling the 3 bracelets?

Show All Work

Answer $ _____

3 Bailey drew a triangle with a base of 10 units and a height of 3 units.

In the table below, list all possible base and height measurements that would make a triangle with the SAME area, in square units, as Bailey's triangle. Use WHOLE numbers only.

Area of triangle $= \frac{1}{2} bh$

$\qquad\qquad\quad = \frac{1}{2} \times$ base $\times$ height

Show All Work

Base	Height

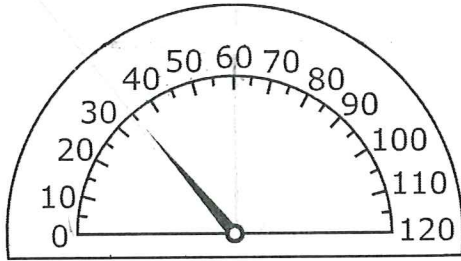**4** Use your protractor to solve this problem.

Shandra notices the speedometer in her mom's car forms angles as her mom drives different speeds. The diagram below shows the angle formed when Shandra's mom drives 35 miles per hour.

Shandra tells her mom this angle is an acute angle.

Explain whether Shandra is or is not correct. Use measurements to support your answer.

_____

_____

_____

_____

What type of angle would be formed if the speed of the car increased by 25 miles per hour?

Show All Work

Answer _____

At what speed would the speedometer form an obtuse angle?

Answer _____ miles per hour

1. Grade 3 Multiple Choice Item (Computation)

Solve the problem below.

48 + 23 = _____

A. 70

B. 71

C. 61

D. 60

2. Grade 3 Multiple Choice Item (Number Sense)

Round the number below to the nearest hundred.

873

A. 800

B. 870

C. 900

D. 860

3. Grade 3 Constructed Response Item (Computation/Problem Solving)

Nick has 5 bags, each with 7 stickers. Mary has 10 more stickers than Nick.
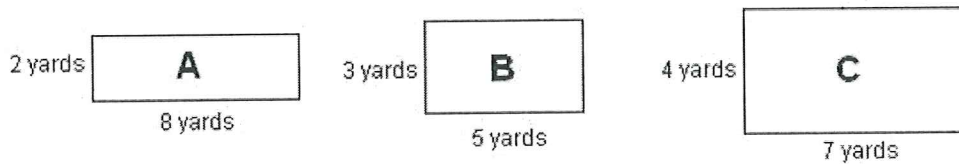
How many stickers do Nick and Mary have in all?

Show All Work

Answer_____stickers

4. Grade 4 Extended Response Item (Measurement/Problem Solving)

The diagram below shows the three floors Elaine will mop for her summer job.

2 yards | **A** | 8 yards

3 yards | **B** | 5 yards

4 yards | **C** | 7 yards

What is the total area, in square yards, that Elaine will mop if she mops each floor once?

Show All Work

Answer _____ **square yards**

This week, Elaine has to mop floor B twice. At the end of the week, she feels she mopped a larger area by mopping floor B twice than mopping floors A and C once.

Use words, numbers, or symbols to explain why Elaine is NOT correct. Be sure to indicate the areas to support your answer.

_____

_____

_____

_____

5. Grade 4 Extended Response Item (Measurement/Problem Solving)

Dean is painting a wall that is 16 feet long and 9 feet high. One small can of paint will cover an area of 50 square feet.

How many cans of paint will Dean need to paint the wall?

Area of a rectangle $= lw$
$= $ length $\times$ width

Show All Work

Answer _____ **cans**

Dean needs to paint a 2nd wall that measures 25 feet long and 5 feet high. He decides to buy 5 small cans of paint.

Use words, numbers, or symbols to verify if Dean has purchased enough paint to completely paint BOTH walls.

_____

_____

_____

_____

6. Grade 4 Constructed Response Item (Number Sense/Problem Solving)

Three friends were comparing the number of crackers they ate from their snack bags. The numbers are listed below.

$$1\frac{3}{4} \qquad \frac{7}{10} \qquad 0.25$$

What is the TOTAL number of crackers the three friends ate in decimal form?

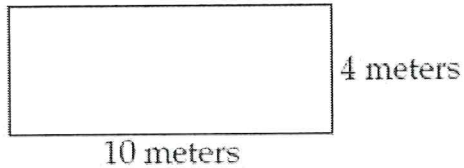**Show All Work**

Answer _____ **crackers**

What is the number as a fraction?

Answer _____ **crackers**

4

7. Grade 4 Multiple Choice Item (Measurement)
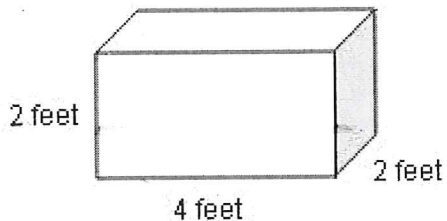
Study the rectangle below.

4 meters

10 meters

What is the perimeter, in meters, of the rectangle?

A. 14 meters

B. 18 meters

C. 28 meters

D. 40 meters

8. Grade 5 Multiple Choice Item (Measurement)

Mike has a fish tank shaped like a rectangular prism. A diagram of the tank is shown below.

2 feet

4 feet

2 feet

Volume of rectangular prism = lwh
= length x width x height
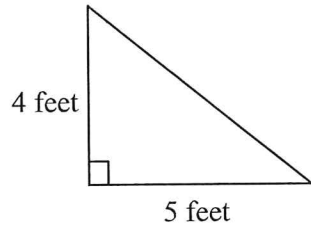
What is the volume, in cubic feet, of the fish tank?

A. 6 cubic feet

B. 8 cubic feet

C. 10 cubic feet

D. 16 cubic feet

9. Grade 5 Extended Response Item (Measurement/Problem Solving)

Joan needs to paint the cardboard triangle shown in the diagram below for a school project.

4 feet

5 feet

Area of triangle = ½ bh
= ½ x base x height

Joan has a bottle of paint that covers an area of 8 square feet. She thinks she will have to buy another bottle of paint to paint the front of the cardboard triangle.

Use words, numbers, or symbols to prove that Joan is correct.

_____

_____

_____

_____

If Joan also wants to paint the back of the cardboard triangle, what is the total area, in square feet, that she will have left to paint AFTER using one bottle of paint?

Show All Work

Answer _____ **square feet**

How many bottles of paint will she need to paint the entire front AND back of the cardboard triangle?
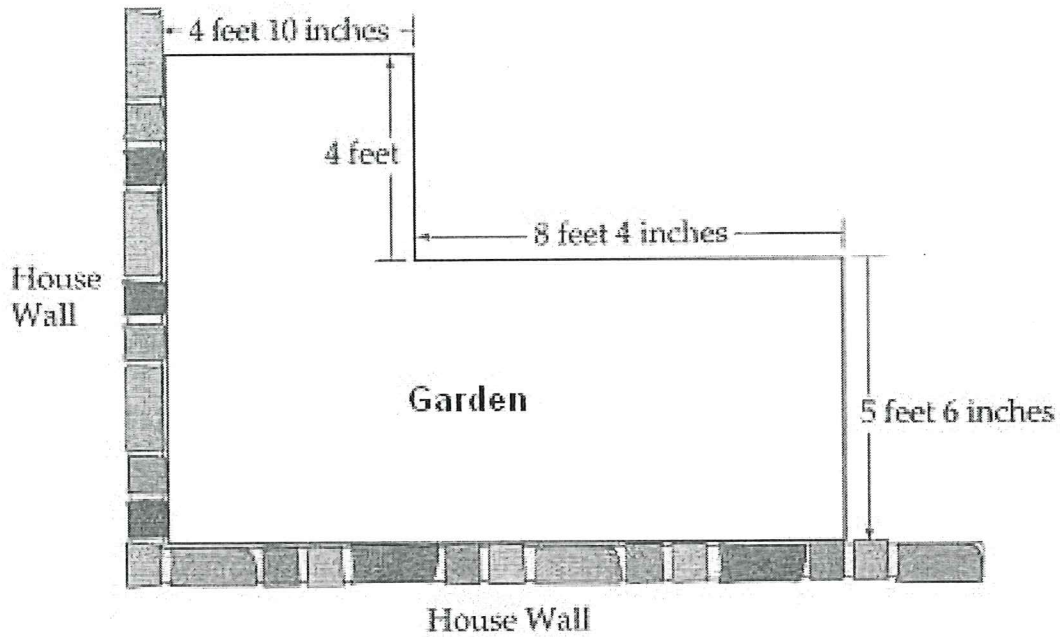
Show All Work

Answer _____ **bottles of paint**

10. Grade 5 Multiple Choice Item (Problem Solving)

Daniel is building a garden in his yard. The measurements of the garden are shown in the diagram below.

What is the total PERIMETER, in feet and inches, of the garden?

A. 22 feet 4 inches

B. 22 feet 8 inches

C. 44 feet 8 inches

D. 45 feet 4 inches

Scoring Guide

1. **B. 71**
2. **C. 900**

3. **Grade 3 Constructed Response Item (Computation/Problem Solving)**

   - 80 stickers

Sample Process:
Nick: $7 + 7 + 7 + 7 + 7 = 35$
Mary: $35 + 10 = 45$
Total: $35 + 45 = 80$

4. **Grade 4 Extended Response Item (Measurement/Problem Solving)**

   - 59 square yards

   AND

   - Elaine is not correct because mopping Floor B twice is less area than Floors A and C combined.

Sample Process:
Floor A = $2 \times 8 = 16$ square yards
Floor B = $3 \times 5 = 15$ square yards
Floor C = $4 \times 7 = 28$ square yards
$16 + 15 + 28 = 59$ square yards
Floor B twice is $15 \times 2 = 30$ square yards
Floors A and C together is $16 + 28 = 44$ square yards

5. **Grade 4 Extended Response Item (Measurement/Problem Solving)**

   - 3 cans

   AND

   - Dean will need 1 more can of paint to cover both walls.

   Sample Process:

$16 \times 9 = 144$ square feet	Second wall is $25 \times 5 = 125$ square feet
$50 + 50 + 50 = 150$	$125 + 144 = 269$ square feet for both walls
3 cans for 144 square feet	$50 + 50 + 50 + 50 + 50 = 250$ (5 cans)
	1 more can: $250 + 50 = 300$

6. Grade 4 Constructed Response Item (Number Sense/Problem Solving)

- 2.7 or 2.70

AND

- $2\dfrac{7}{10}$

Sample Process:

1 ¾ = 1.75
7/10 = 0.7
1.75 + 0.7 + 0.25 = 2.70

7. C. 28 meters
8. D. 16 cubic feet

9. Grade 5 Extended Response Item (Measurement/Problem Solving)

- The area of the triangle is ½ x 4 x 5 = 10 square feet. Since she only has enough paint to cover 8 square feet, she will need another bottle of paint.

AND

- 12 square feet

AND

- 3 bottles of paint

Sample Process:

Area of front of triangle: 4 x 5 = 20
                              20 ÷ 2 = 10 square feet

10 + 10 = 20 square feet for the front and back
20 – 8 = 12 square feet left

8 + 8 = 16
16 + 8 = 24 so 3 bottles needed

10. D. 45 feet 4 inches