

3. During the summer, Victoria plays soccer and takes swim and piano lessons. Each swim lesson is 15 minutes shorter than a soccer practice. Each piano lesson is twice as long as a soccer practice. Use this information to answer the questions that follow.

- a. The following expressions represent how long an activity is each time she goes. Write the name of the activity that matches each expression on the lines provided.

t : _____

$t - 15$: _____

$2t$: _____

- b. Victoria has soccer three times a week, swimming four times a week, and piano twice a week. She spends a total of 435 minutes each week doing these three activities a week. Write an equation that represents this situation.

- c. How long is one session of each activity?

Soccer: _____ **Swimming:** _____ **Piano:** _____

4. The ratio of freshmen to sophomores to juniors to seniors in band is 1:2:3:2. If there are a total of 240 students in the band, how many are in each grade level?

Freshmen: _____ **Sophomores:** _____ **Juniors:** _____ **Seniors:** _____

5. The art teacher is making salt dough for an upcoming project. The ratio of flour to salt to water used to make salt dough is shown below.

Making Salt Dough

Cups of flour: $2c$
 Cups of salt: c
 Cups of water: $\frac{3}{4}c$
 $2c + c + \frac{3}{4}c = 60$ cups

Story

- a. Write a story that matches the expressions and equation shown on the left.
 b. Solve the equation. How many cups of each ingredient is the art teacher planning to use?

Cups of flour: _____ Cups of salt: _____ Cups of water: _____

6. Use the story below about a triangle to answer the questions that follow.

Angles in a Triangle

$m\angle A$: _____
 $m\angle B$: _____
 $m\angle C$: _____ x _____

Equation: _____

Story

In $\triangle ABC$, the measure of $\angle B$ is three times larger than the measure of $\angle C$. The measure of $\angle A$ is twice as large as the measure of $\angle C$. The sum of the angles in a triangle is 180° .

- a. Write the expressions and equation matching the story on the lines provided above.
 b. What is the measure of each angle in the triangle?

$m\angle A =$ _____ $m\angle B =$ _____ $m\angle C =$ _____

9. Use the expressions and equation below about the cost of clothes to answer the questions that follow.

The Cost of Clothes

Cost of a shirt: c

Cost of a pair of jeans: $c + 12$

$$3c + 2(c + 12) = \$164$$

Story

- a. Write a story that matches the expressions and equation in the space provided.
- b. Solve the equation to determine the cost of a shirt and the cost of a pair of jeans.

Cost of a shirt: _____ **Cost of a pair of jeans:** _____

Directions: Write and solve an equation to answer each of the following problems. Use pictures and models to help you. Refer back to similar problems you have already seen in the chapter to help you if you get stuck. Make sure your answers are displayed clearly with the appropriate units.

10. The width of a rectangle is five less than three times the length of the rectangle. If the perimeter of the rectangle is 70 inches what are the dimensions of the rectangle?

11. At Shoes for Less, a pair of shoes is \$15 less than a pair of boots. Cho purchased three pairs of shoes and two pairs of boots for \$120. How much does a pair of boots cost?

12. Central Lewis High School has five times as many desktop computers as laptops. The school has a total of 360 computers. How many laptops does Central Lewis High School have?
13. In $\triangle LMN$, the measure of $\angle L$ is equal to the measure of $\angle M$. The measure of $\angle N$ is twice the measure of $\angle M$. Find the measure of each angle in $\triangle LMN$.
14. Adam is trying to solve the following riddle: “The sum of three consecutive integers is -36 . What are the integers?” Solve Adam’s riddle.
15. Afua got a 90% on her first math exam, a 76% on her second math exam, and a 92% on her third math exam. What must she score on her fourth exam to have an average of 88% in the class?
16. At Discovery Preschool, parents who have two students enrolled get a discount on the second child. The second child’s tuition is 10 dollars less per day than the first child’s. If Tess has her two children enrolled for 5 days and her total bill for both children is \$200, how much does she pay each day for her second child to attend daycare?