

Name \_\_\_\_\_

**Math 7: Dividing a Quantity  
into a Ratio of Parts**

1. How many parts are there in the ratio 7: 3? \_\_\_\_\_

2. How many parts are there in the ratio 12: 13? \_\_\_\_\_

3. 20 is divided into two parts,  $A$  and  $B$ , in the ratio 3: 2.

a. What is the value of  $A$ ? \_\_\_\_\_

b. What is the value of  $B$ ? \_\_\_\_\_

4. 40.7 is divided into two parts,  $A$  and  $B$ , in the ratio 3: 8.

a. What is the value of  $A$ ? \_\_\_\_\_

b. What is the value of  $B$ ? \_\_\_\_\_

5. 144 is divided into three parts,  $A$ ,  $B$ , and  $C$ , in the ratio 5: 9: 2.

a. What is the value of  $A$ ? \_\_\_\_\_

b. What is the value of  $B$ ? \_\_\_\_\_

c. What is the value of  $C$ ? \_\_\_\_\_

6. Mohamad and Luigi share \$90 in the ratio 9: 1.

a. What fraction of the total amount does Luigi receive? \_\_\_\_\_

b. Therefore, how much money will Luigi receive? \_\_\_\_\_

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**PLEASE SHOW YOUR CALCULATIONS / THOUGHT PROCESS.**

7. The gas in a container consists of 8 parts oxygen and 10 parts helium. How many liters of oxygen are present if there are 360 liters of gas in the container? \_\_\_\_\_

8. A certain metal alloy is made up of tin and zinc in the ratio 5: 2. If 42 kg of this metal alloy is to be made:

a. Find the mass of tin needed. \_\_\_\_\_

b. Find the mass of zinc needed. \_\_\_\_\_

9. The ratio of males to females on a train is 7: 4. If the train is carrying 429 passengers:

a. Find the number of males on the train. \_\_\_\_\_

b. Find the number of females on the train. \_\_\_\_\_

10. Sam and Mike divide their earnings of \$615 in the ratio 8: 7.

a. Find how much Sam receives. \_\_\_\_\_

b. Find how much Mike receives. \_\_\_\_\_

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- 11.** Helen and Lara scored goals in their soccer game in the ratio 3: 5.  
If they scored a total of 24 goals:
- a. Find how many goals Helen scored. \_\_\_\_\_
  - b. Find how many goals Lara scored. \_\_\_\_\_
- 12.** A journalist spent a total of 75 hours researching, writing, and editing a news report. She spent 45 hours researching and 20 hours writing.
- a. How many hours did she spend editing the report? \_\_\_\_\_
  - b. Find, in simplest form, the ratio in which her time was divided between researching, writing, and editing. \_\_\_\_\_
- 13.** The angles in a triangle are in the ratio 3: 4: 5.
- a. Find the measure of the smallest angle. \_\_\_\_\_
  - b. Find the measure of the largest angle. \_\_\_\_\_
  - c. Find the measure of the remaining angle. \_\_\_\_\_
- 14.** A straight line with a total length of 72 cm is divided into three segments, *A*, *B*, and *C*, in the ratio 2: 9: 7.
- a. Find the length of segment *A*. \_\_\_\_\_
  - b. Find the length of segment *B*. \_\_\_\_\_
  - c. Find the length of segment *C*. \_\_\_\_\_