

Name _____

Date _____

1. Complete the conversion charts.

| Length | |
|------------|---------|
| 3 km | _____ m |
| 9 km | _____ m |
| 6 km 435 m | _____ m |
| 12 km 12 m | _____ m |

| Mass | |
|-------------|---------|
| 3 kg | _____ g |
| 20 kg 300 g | _____ g |
| 1 kg 74 g | _____ g |
| 403 kg 4 g | _____ g |

| Capacity | |
|-------------|----------|
| 4 L | _____ mL |
| 48 L 808 mL | _____ mL |
| 2 L 20 mL | _____ mL |
| 639 L 6 mL | _____ mL |

2. A student completed the problem below. Check his work. Explain how you know if each solution is correct or incorrect.

Convert the following measurements:

a. 24 km = 24,000 m

b. 16 L = 16,000 mL

c. 38 kg = 3,800 g

3. Find the sum or difference.

a. $493 \text{ km } 43 \text{ m} + 17 \text{ km } 57 \text{ m}$

b. $25 \text{ kg } 32 \text{ g} - 23 \text{ kg } 83 \text{ g}$

c. $100 \text{ L } 99 \text{ mL} + 2,999 \text{ mL}$

4. Billy is training for a half marathon. For the problems below, use tape diagrams, numbers, and words to explain each answer.
- a. Each day, Billy runs on the treadmill for 5 kilometers and runs on the outdoor track for 6,000 meters. In all, how many meters does Billy run each day?
- b. Since Billy has started training, he has also been drinking more water. On Saturday, he drank 2 liters 755 milliliters of water. On Sunday, he drank some more. If Billy drank a total of 4 liters 255 milliliters of water on Saturday and Sunday, how many milliliters of water did Billy drink on Sunday?
- c. Since he began exercising so much for his half marathon, Billy has been losing weight. In his first week of training, he lost 2 kilograms 530 grams. In the following two weeks of training, he lost 1 kilogram 855 grams each week. Billy now weighs 61 kilograms 760 grams. What was Billy's weight, in grams, before he started training? Explain your thinking.