Name _____ Date _____

1. Convert the measurements.

a. 1 km = _____ m

b. 4 km = _____ m

c. 7 km = _____ m

d. _____ km = 18,000 m

e. 1 m = _____ cm

f. 3 m = _____ cm

g. 80 m = _____ cm

h. _____ m = 12,000 cm

2. Convert the measurements.

a. 3 km 312 m = _____ m

b. 13 km 27 m = _____ m

c. 915 km 8 m = _____ m

d. 3 m 56 cm = _____ cm

e. 14 m 8 cm = _____ cm

f. 120 m 46 cm = _____ cm

3. Solve.

a. 4 km − 280 m

b. 1 m 15 cm − 34 cm

c. Express your answer in the smaller unit:
1 km 431 m + 13 km 169 m

d. Express your answer in the smaller unit:
231 m 31 cm − 14 m 48 cm

e. 67 km 230 m + 11 km 879 m

f. 67 km 230 m − 11 km 879 m

Use a tape diagram to model each problem. Solve using a simplifying strategy or an algorithm, and write your answer as a statement.

4. The length of Carter's driveway is 12 m 38 cm. His neighbor's driveway is 4 m 99 cm longer. How long is his neighbor's driveway?

5. Enya walked 2 km 309 m from school to the store. Then, she walked from the store to her home. If she walked a total of 5 km, how far was it from the store to her home?

6. Rachael has a rope 5 m 32 cm long that she cut into two pieces. One piece is 249 cm long. How many centimeters long is the other piece of rope?

7. Jason rode his bike 529 fewer meters than Allison. Jason rode 1 km 850 m. How many meters did Allison ride?

Name _____ Date _____

1. Complete the conversion table.

Mass	
kg	**g**
1	1,000
3	
	4,000
17	
	20,000
300	

2. Convert the measurements.

a. 1 kg 500 g = _____ g

b. 3 kg 715 g = _____ g

c. 17 kg 84 g = _____ g

d. 25 kg 9 g = _____ g

e. _____ kg _____ g = 7,481 g

f. 210 kg 90 g = _____ g

3. Solve.

a. 3,715 g – 1,500 g

b. 1 kg – 237 g

c. Express the answer in the smaller unit:
25 kg 9 g + 24 kg 991 g

d. Express the answer in the smaller unit:
27 kg 650 g – 20 kg 990 g

e. Express the answer in mixed units:
14 kg 505 g – 4,288 g

f. Express the answer in mixed units:
5 kg 658 g + 57,481 g

Use a tape diagram to model each problem. Solve using a simplifying strategy or an algorithm, and write your answer as a statement.

4. One package weighs 2 kilograms 485 grams. Another package weighs 5 kilograms 959 grams. What is the total weight of the two packages?

5. Together, a pineapple and a watermelon weigh 6 kilograms 230 grams. If the pineapple weighs 1 kilogram 255 grams, how much does the watermelon weigh?

6. Javier's dog weighs 3,902 grams more than Bradley's dog. Bradley's dog weighs 24 kilograms 175 grams. How much does Javier's dog weigh?

7. The table to the right shows the weight of three Grade 4 students. How much heavier is Isabel than the lightest student?

Student	Weight
Isabel	35 kg
Irene	29 kg 38 g
Sue	29,238 g

Name _____ Date _____

1. Complete the conversion table.

Liquid Capacity	
L	**mL**
1	1,000
5	
38	
	49,000
54	
	92,000

2. Convert the measurements.

a. 2 L 500 mL = _____ mL

b. 70 L 850 mL = _____ mL

c. 33 L 15 mL = _____ mL

d. 2 L 8 mL = _____ mL

e. 3,812 mL = _____ L _____ mL

f. 86,003 mL = _____ L _____ mL

3. Solve.

a. 1,760 mL + 40 L

b. 7 L – 3,400 mL

c. Express the answer in the smaller unit:
25 L 478 mL + 3 L 812 mL

d. Express the answer in the smaller unit:
21 L – 2 L 8 mL

e. Express the answer in mixed units:
7 L 425 mL – 547 mL

f. Express the answer in mixed units:
31 L 433 mL – 12 L 876 mL

Use a tape diagram to model each problem. Solve using a simplifying strategy or an algorithm, and write your answer as a statement.

4. To make fruit punch, John's mother combined 3,500 milliliters of tropical drink, 3 liters 95 milliliters of ginger ale, and 1 liter 600 milliliters of pineapple juice.
   a. Order the quantity of each drink from least to greatest.

   b. How much punch did John's mother make?

5. A family drank 1 liter 210 milliliters of milk at breakfast. If there were 3 liters of milk before breakfast, how much milk is left?

6. Petra's fish tank contains 9 liters 578 milliliters of water. If the capacity of tank is 12 liters 455 milliliters of water, how many more milliliters of water does she need to fill the tank?

Name _____ Date _____

1. Complete the table.

Smaller Unit	Larger Unit	How Many Times as Large as?
one	hundred	100
centimeter		100
one	thousand	1,000
gram		1,000
meter	kilometer	
milliliter		1,000
centimeter	kilometer	

2. Fill in the units in word form.

a. 429 is 4 hundreds 29 _____.

b. 429 cm is 4 _____ 29 cm.

c. 2,456 is 2 _____ 456 ones.

d. 2,456 m is 2 _____ 456 m.

e. 13,709 is 13 _____ 709 ones.

f. 13,709 g is 13 kg 709 _____.

3. Fill in the unknown number.

a. _____ is 456 thousands 829 ones.

b. _____ mL is 456 L 829 mL.

4. Use words, equations, or pictures to show and explain how metric units are like and unlike place value units.

5. Compare using >, <, or =.

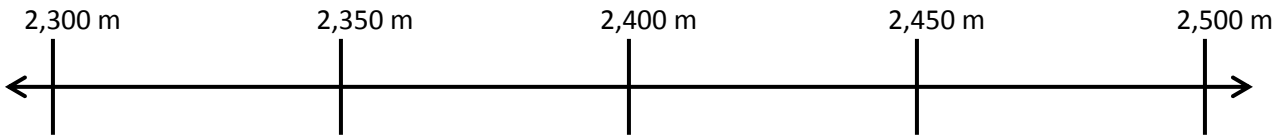
   a. 893,503 mL ◯ 89 L 353 mL

   b. 410 km 3 m ◯ 4,103 m

   c. 5,339 m ◯ 533,900 cm

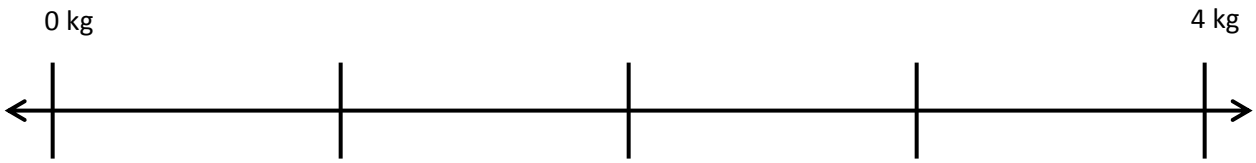
6. Place the following measurements on the number line:

2 km 415 m 2,379 m 2 km 305 m 245,500 cm



7. Place the following measurements on the number line:

2 kg 900 g 3,500 g 1 kg 500 g 2,900 g 750 g



Name _____ Date _____

Model each problem with a tape diagram. Solve and answer with a statement.

1. The potatoes Beth bought weighed 3 kilograms 420 grams. Her onions weighed 1,050 grams less than the potatoes. How much did the potatoes and onions weigh together?

2. Adele let out 18 meters 46 centimeters of string to fly her kite. She then let out 13 meters 78 centimeters more before reeling back in 590 centimeters. How long was her string after reeling it in?

3. Shyan's barrel contained 6 liters 775 milliliters of paint. She poured in 1 liter 118 milliliters more. The first day Shyan used 2 liters 125 milliliters of the paint. At the end of the second day, there were 1,769 milliliters of paint remaining in the barrel. How much paint did Shyan use on the second day?

4. On Thursday, the pizzeria used 2 kilograms 180 grams less flour than they used on Friday. On Friday, they used 12 kilograms 240 grams. On Saturday, they used 1,888 grams more than on Friday. What was the total amount of flour used over the three days?

5. The gas tank in Zachary's car has a capacity of 60 liters. He adds 23 liters 825 milliliters gas to the tank, which already has 2,050 milliliters of gas. How much more gas can Zachary add to the gas tank?

6. A giraffe is 5 meters 20 centimeters tall. An elephant is 1 meter 77 centimeters shorter than the giraffe. A rhinoceros is 1 meter 58 centimeters shorter than the elephant. How tall is the rhinoceros?

Name _____ Date _____

1. Find the equivalent measures.

a. 5 km = _____ m

b. 13 km = _____ m

c. _____ km = 17,000 m

d. 60 km = _____ m

e. 7 m = _____ cm

f. 19 m = _____ cm

g. _____ m = 2,400 cm

h. 90 m = _____ cm

2. Find the equivalent measures.

a. 7 km 123 m = _____ m

b. 22 km 22 m = _____ m

c. 875 km 4 m = _____ m

d. 7 m 45 cm = _____ cm

e. 67 m 7 cm = _____ cm

f. 204 m 89 cm = _____ cm

3. Solve.

a. 2 km 303 m – 556 m

b. 2 m – 54 cm

c. Express your answer in the smaller unit:
338 km 853 m + 62 km 71 m

d. Express your answer in the smaller unit:
800 m 35 cm – 154 m 49 cm

e. 701 km – 523 km 445 m

f. 231 km 811 m + 485 km 829 m

Use a tape diagram to model each problem. Solve using a simplifying strategy or an algorithm, and write your answer as a statement.

4. The length of Celia's garden is 15 m 24 cm. The length of her friend's garden is 2 m 98 cm more than Celia's. What is the length of her friend's garden?

5. Sylvia ran 3 km 290 m in the morning. Then, she ran some more in the evening. If she ran a total of 10 km, how far did Sylvia run in the evening?

6. Jenny's sprinting distance was 356 meters shorter than Tyler's. Tyler sprinted a distance of 1 km 3 m. How many meters did Jenny sprint?

7. The electrician had 7 m 23 cm of electrical wire. He used 551 cm for one wiring project. How many centimeters of wire does he have left?

Name _____ Date _____

1. Complete the conversion table.

Mass	
kg	**g**
1	1,000
6	
	8,000
15	
	24,000
550	

2. Convert the measurements.

a. 2 kg 700 g = _____ g

b. 5 kg 945 g = _____ g

c. 29 kg 58 g = _____ g

d. 31 kg 3 g = _____ g

e. 66,597 g = _____ kg _____ g

f. 270 kg 41 g = _____ g

3. Solve.

a. 370 g + 80 g

b. 5 kg – 730 g

c. Express the answer in the smaller unit:
27 kg 547 g + 694 g

d. Express the answer in the smaller unit:
16 kg + 2,800 g

e. Express the answer in mixed units:
4 kg 229 g – 355 g

f. Express the answer in mixed units:
70 kg 101 g – 17 kg 862 g

Use a tape diagram to model each problem. Solve using a simplifying strategy or an algorithm, and write your answer as a statement.

4. One suitcase weighs 23 kilograms 696 grams. Another suitcase weighs 25 kilograms 528 grams. What is the total weight of the two suitcases?

5. A bag of potatoes and a bag of onions combined weigh 11 kilograms 15 grams. If the bag of potatoes weighs 7 kilograms 300 grams, how much does the bag of onions weigh?

6. The table below shows the weight of three dogs. What is the difference in weight between the heaviest and lightest dog?

Dog	Weight
Lassie	21 kg 249 g
Riley	23 kg 128 g
Fido	21,268 g

Name _____ Date _____

1. Complete the conversion table.

Liquid Capacity	
L	**mL**
1	1,000
8	
27	
	39,000
68	
	102,000

2. Convert the measurements.

a. 5 L 850 mL = _____ mL

b. 29 L 303 mL = _____ mL

c. 37 L 37 mL = _____ mL

d. 17 L 2 mL = _____ mL

e. 13,674 mL = _____ L _____ mL

f. 275,005 mL = _____ L _____ mL

3. Solve.

a. 545 mL + 48 mL

b. 8 L – 5,740 mL

c. Express the answer in the smaller unit:
27 L 576 mL + 784 mL

d. Express the answer in the smaller unit:
27 L + 3,100 mL

e. Express the answer in mixed units:
9 L 213 mL – 638 mL

f. Express the answer in mixed units:
41 L 724 mL – 28 L 945 mL

Use a tape diagram to model each problem. Solve using a simplifying strategy or an algorithm, and write your answer as a statement.

4. Sammy's bucket holds 2,530 milliliters of water. Marie's bucket holds 2 liters 30 milliliters of water. Katie's bucket holds 2 liters 350 milliliters of water. Whose bucket holds the least amount of water?

5. At football practice, the water jug was filled with 18 liters 530 milliliters of water. At the end of practice, there were 795 milliliters left. How much water did the team drink?

6. 27, 545 milliliters of gas were added to a car's empty gas tank. If the gas tank's capacity is 56 liters 202 milliliters, how much gas is needed to fill the tank?

Name _____ Date _____

1. Complete the table.

Smaller Unit	Larger Unit	How Many Times as Large as?
centimeter	meter	100
	hundred	100
meter	kilometer	
gram		1,000
one		1,000
milliliter		1,000
one	hundred thousand	

2. Fill in the unknown unit in word form.

a. 135 is 1 _____ 35 ones.

b. 135 cm is 1 _____ 35 cm.

c. 1,215 is 1 _____ 215 ones.

d. 1,215 m is 1 _____ 215 m.

e. 12,350 is 12 _____350 ones.

f. 12,350 g is 12 kg 350 _____.

3. Write the unknown number.

a. _____ is 125 thousands 312 ones.

b. _____ mL is 125 L 312 mL.

4. Fill in each with >, <, or =.

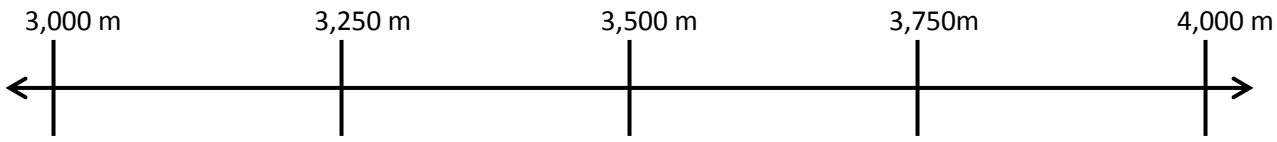
   a. 890,353 mL ◯ 89 L 353 mL

   b. 2 km 13 m ◯ 2,103 m

5. Brandon's backpack weighs 3,140 grams. Brandon weighs 22 kilograms 610 grams more than his backpack. If Brandon stands on a scale wearing his backpack, what will the weight read?

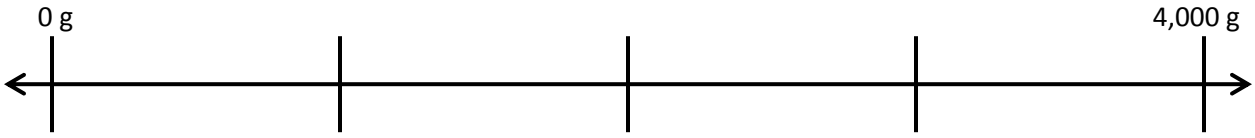
6. Place the following measurements on the number line:

3 km 275 m 3,500 m 3 km 5 m 394,000 cm



7. Place the following measurements on the number line:

1 kg 379 g 3,079 g 2 kg 79 g 3,579 g 579 g



Name _____ Date _____

Model each problem with a tape diagram. Solve and answer with a statement.

1. The capacity of Jose's vase is 2,419 milliliters of water. He poured 1 liter 299 milliliters of water into the empty vase. Then, he added 398 milliliters. How much more water will the vase hold?

2. Eric biked 1 kilometer 125 meters on Monday. On Tuesday, he biked 375 meters less than on Monday. How far did he bike both days?

3. Zachary weighs 37 kilograms 95 grams. Gabe weighs 4,650 grams less than Zachary. Harry weighs 2,905 grams less than Gabe. How much does Harry weigh?

4. A Springer Spaniel weighs 20 kilograms 490 grams. A Cocker Spaniel weighs 7,590 grams less than a Springer Spaniel. A Newfoundland weighs 52 kilograms 656 grams more than a Cocker Spaniel. What is the difference, in grams, between the weights of the Newfoundland and the Springer Spaniel?

5. Marsha has three rugs. The first rug is 2 meters 87 centimeters long. The second rug has a length 98 centimeters less than the first. The third rug is 111 centimeters longer than the second rug. What is the difference in centimeters between the length of the first rug and third rug?

6. One barrel held 60 liters 868 milliliters of sap. A second barrel held 20,089 milliliters more sap than the first. A third barrel held 40 liters 82 milliliters less sap than the second. If the sap from the three barrels was poured into a larger container, how much sap would there be in all?

Name _____ Date _____

1. Complete the conversion table.

Distance	
71 km	_____ m
_____ km	30,000 m
81 m	_____ cm
_____ m	400 cm

2. 13 km 20 m = _____ m

3. 401 km 101 m – 34 km 153 m = _____

4. Gabe built a toy tower that measured 1 m 78 cm. After building some more, he measured it, and it was 82 cm taller. How tall is his tower now? Draw a tape diagram to model this problem. Use a simplifying strategy or an algorithm to solve, and write your answer as a statement.

Name _____ Date _____

1. Convert the measurements.

   a. 21 g 415 g = _____ g

   b. 2 kg 91 g = _____ g

   c. 87 kg 17 g = _____ g

   d. ____ kg _____ g = 96,020 g

Use a tape diagram to model the following problem. Solve using a simplifying strategy or an algorithm, and write your answer as a statement.

2. The table to the right shows the weight of three dogs. How much more does the Great Dane weigh than the Chihuahua?

Dog	Weight
Great Dane	59 kg
Golden Retriever	32 kg 48 g
Chihuahua	1,329 g

Name _____ Date _____

1. Convert the measurements.

   a. 6 L 127 mL = _____ mL

   b. 706 L 220 mL = _____ mL

   c. 12 L 9 mL = _____mL

   d. _____ L _____ mL = 906,010 mL

2. 81 L 603 mL – 22 L 489 mL

Use a tape diagram to model the following problem. Solve using a simplifying strategy or an algorithm, and write your answer as a statement.

3. The Smith's hot tub has a capacity of 1,458 liters. Mrs. Smith put 487 liters 750 milliliters of water in the tub. How much water needs to be added to fill the hot tub completely?

Name _____ Date _____

1. Fill in the unknown unit in word form.

   a. 8,135 is 8 _____ 135 ones.

   b. 8,135 kg is 8 _____ 135 g.

2. _____ mL is equal to 342 L 645 mL.

3. Compare using >, <, or =.

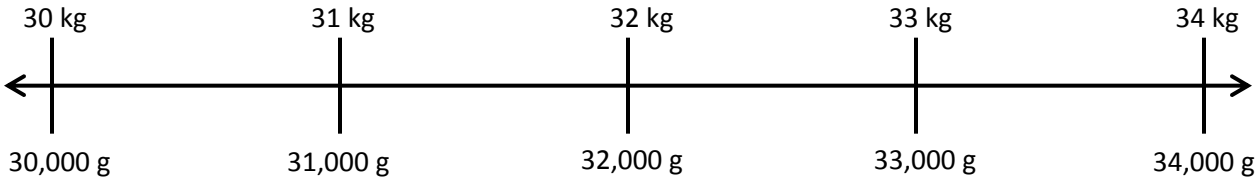
   a. 23 km 40 m ◯ 2,340 m

   b. 13,798 mL ◯ 137 L 980 mL

   c. 5,607 m ◯ 560,701 cm

4. Place the following measurements on the number line:

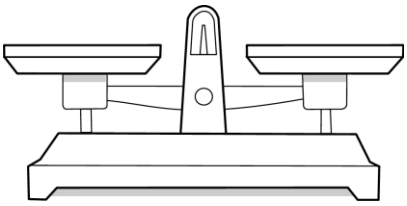
   33 kg 100 g 31,900 g 32,350 g 30 kg 500 g



Name _____ Date _____

Model each problem with a tape diagram. Solve and answer with a statement.

1. Jeff places a pineapple with a mass of 890 grams on a balance scale. He balances the scale by placing two oranges, an apple, and a lemon on the other side. Each orange weighs 280 grams. The lemon weighs 195 grams less than each orange. What is the mass of the apple?



2. Brian is 1 meter 87 centimeters tall. Bonnie is 58 centimeters shorter than Brian. Betina is 26 centimeters taller than Bonnie. How tall is Betina?

A

Correct _____

Write in meters and centimeters.

1	3 m + 1 m =	m	cm	23	3 m 10 cm + 1 m 1 cm =	m	cm
2	4 m + 2 m =	m	cm	24	3 m 10 cm + 2 m 2 cm =	m	cm
3	2 m + 3 m =	m	cm	25	3 m 10 cm + 3 m 3 cm =	m	cm
4	5 m + 4 m =	m	cm	26	3 m 20 cm + 3 m 3 cm =	m	cm
5	2 m + 2 m =	m	cm	27	6 m 30 cm + 2 m 20 cm =	m	cm
6	3 m + 3 m =	m	cm	28	8 m 30 cm + 2 m 20 cm =	m	cm
7	4 m + 4 m =	m	cm	29	6 m 50 cm + 2 m 25 cm =	m	cm
8	5 m + 5 m =	m	cm	30	6 m 25 cm + 2 m 25 cm =	m	cm
9	5 m 7 cm + 1 m =	m	cm	31	4 m 70 cm + 1 m 10 cm =	m	cm
10	6 m 7 cm + 1 m =	m	cm	32	4 m 80 cm + 1 m 10 cm =	m	cm
11	7 m 7 cm + 1 m =	m	cm	33	4 m 90 cm + 1 m 10 cm =	m	cm
12	9 m 7 cm + 1 m =	m	cm	34	4 m 90 cm + 1 m 20 cm =	m	cm
13	9 m 7 cm + 1 cm =	m	cm	35	4 m 90 cm + 1 m 60 cm =	m	cm
14	5 m 7 cm + 1 cm =	m	cm	36	5 m 75 cm + 2 m 25 cm =	m	cm
15	3 m 7 cm + 1 cm =	m	cm	37	5 m 75 cm + 2 m 50 cm =	m	cm
16	3 m 7 cm + 3 cm =	m	cm	38	4 m 90 cm + 3 m 50 cm =	m	cm
17	6 m 70 cm + 10 cm =	m	cm	39	5 m 95 cm + 3 m 25 cm =	m	cm
18	6 m 80 cm + 10 cm =	m	cm	40	4 m 85 cm + 3 m 25 cm =	m	cm
19	6 m 90 cm + 10 cm =	m	cm	41	5 m 85 cm + 3 m 45 cm =	m	cm
20	6 m 90 cm + 20 cm =	m	cm	42	4 m 87 cm + 3 m 76 cm =	m	cm
21	6 m 90 cm + 30 cm =	m	cm	43	6 m 36 cm + 4 m 67 cm =	m	cm
22	6 m 90 cm + 60 cm =	m	cm	44	9 m 74 cm + 8 m 48 cm =	m	cm

A # Correct _____

Write in kilograms and grams.

1	2,000 g =	kg	g	23	3,800 g =	kg	g
2	3,000 g =	kg	g	24	4,770 g =	kg	g
3	4,000 g =	kg	g	25	4,807 g =	kg	g
4	9,000 g =	kg	g	26	5,065 g =	kg	g
5	6,000 g =	kg	g	27	5,040 g =	kg	g
6	1,000 g =	kg	g	28	6,007 g =	kg	g
7	8,000 g =	kg	g	29	2,003 g =	kg	g
8	5,000 g =	kg	g	30	1,090 g =	kg	g
9	7,000 g =	kg	g	31	1,055 g =	kg	g
10	6,100 g =	kg	g	32	9,404 g =	kg	g
11	6,110 g =	kg	g	33	9,330 g =	kg	g
12	6,101 g =	kg	g	34	3,400 g =	kg	g
13	6,010 g =	kg	g	35	4,000 g + 2,000 g =	kg	g
14	6,011 g =	kg	g	36	5,000 g + 3,000 g =	kg	g
15	6,001 g =	kg	g	37	4,000 g + 4,000 g =	kg	g
16	8,002 g =	kg	g	38	8 x 7,000 g =	kg	g
17	8,020 g =	kg	g	39	49,000 g ÷ 7 =	kg	g
18	8,200 g =	kg	g	40	16,000 g x 5 =	kg	g
19	8,022 g =	kg	g	41	63,000 g ÷ 7 =	kg	g
20	8,220 g =	kg	g	42	17 x 4,000 g =	kg	g
21	8,222 g =	kg	g	43	13,000 g x 5 =	kg	g
22	7,256 g =	kg	g	44	84,000 g ÷ 7 =	kg	g

B Improvement _____ # Correct _____

Write in kilograms and grams.

1	1,000 g =	kg	g	23	2,700 g =	kg	g
2	2,000 g =	kg	g	24	3,660 g =	kg	g
3	3,000 g =	kg	g	25	3,706 g =	kg	g
4	8,000 g =	kg	g	26	4,095 g =	kg	g
5	6,000 g =	kg	g	27	4,030 g =	kg	g
6	9,000 g =	kg	g	28	5,006 g =	kg	g
7	4,000 g =	kg	g	29	3,004 g =	kg	g
8	7,000 g =	kg	g	30	2,010 g =	kg	g
9	5,000 g =	kg	g	31	2,075 g =	kg	g
10	5,100 g =	kg	g	32	1,504 g =	kg	g
11	5,110 g =	kg	g	33	1,440 g =	kg	g
12	5,101 g =	kg	g	34	4,500 g =	kg	g
13	5,010 g =	kg	g	35	3,000 g + 2,000 g =	kg	g
14	5,011 g =	kg	g	36	4,000 g + 3,000 g =	kg	g
15	5,001 g =	kg	g	37	5,000 g + 4,000 g =	kg	g
16	7,002 g =	kg	g	38	9 x 8,000 g =	kg	g
17	7,020 g =	kg	g	39	64,000 g ÷ 8 =	kg	g
18	7,200 g =	kg	g	40	17,000 g x 5 =	kg	g
19	7,022 g =	kg	g	41	54,000 g ÷ 6 =	kg	g
20	7,220 g =	kg	g	42	18,000 g x 4 =	kg	g
21	7,222 g =	kg	g	43	14 x 5,000 g =	kg	g
22	4,378 g =	kg	g	44	96,000 g ÷ 8 =	kg	g