

# Operations with Rational Numbers

Long-Term Memory Review – Grade 6

## Review 1

1. Write 13.152 in words. \_\_\_\_\_

2. Write six and five-tenths as a numeral. \_\_\_\_\_

3. Add:  $5.2 + 1.5 + 17.21$

*Hint: Keep decimals lined-up*

$$\begin{array}{r}
 \text{Carried from the ones place} \quad 5 . 2 \\
 \quad \quad \quad \quad \quad \quad \quad 1 . 5 \\
 + \quad 1^1 \quad 7 . 2 \quad 1 \\
 \hline
 \quad \quad \quad \quad \quad \quad \quad . 9
 \end{array}$$

4. Multiply:  $\frac{1}{2} \cdot \frac{2}{7} = \frac{\quad}{14}$

Reduce if possible.

5. Joe wants to add to his sticker collections. He wants to increase his collection by 20%. If he has 1400 stickers in his collection now, how many stickers does he need to add to his collection?

*A percent means “per 100”. Rewrite 20% as a ratio out of 100 (see below) Then write a proportion using the “x out of 1400”.*

$$\frac{20 \text{ increase}}{100 \text{ total}} = \frac{x \text{ increase}}{1400 \text{ total}}$$

Solve for  $x$ .

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## Review 2

1. Write 10.10 in words. \_\_\_\_\_

2. Write ten and twenty-three hundredths as a numeral. \_\_\_\_\_

3. Add:  $5.24 + 41.5 + 317.21$

*Hint: Keep decimals lined-up*

*Carried from the ones place*

$$\begin{array}{r}
 5.24 \\
 41.5 \\
 + 317.21 \\
 \hline
 6.9
 \end{array}$$

4. Multiply:  $\frac{1}{2} \times \frac{3}{4} = \frac{3}{4}$

Reduce if possible.

5. Sara has saved \$95 to buy a bike. She recently found 2 nickels, 1 dime, and 2 quarters. When she adds these coins to her savings, how much money will she have to buy her new bike?

6. Joe had three pieces of wood with lengths of 2.30m, 1.20m, and 4.5m. What is the total length of all the pieces together?

2.30m

1.20m

4.5m

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## Review 3

1. Write 218.15 in words. \_\_\_\_\_

2. Write ninety and thirty-five hundredths as a numeral. \_\_\_\_\_

3. Add:  $351.1261 + 61.5 + 10.21$

4. Multiply:  $\frac{1}{5} \cdot \frac{2}{3}$

Reduce if possible.

5. Joe wants to add to his sticker collection. He wants to increase his collection by 25%. If he has 400 stickers in his collection now, how many stickers does he need to add to his collection?

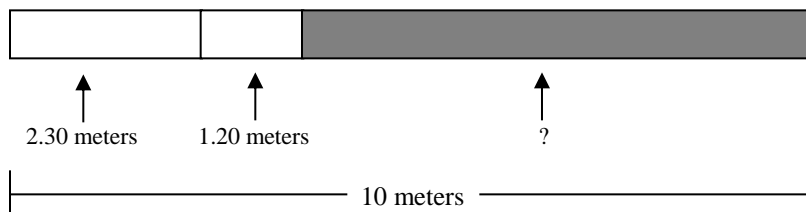
*Write the fraction you are increasing as a ratio (see below).*

*Write and solve a proportion using the fraction you are increasing*

$$\frac{1 \text{ increase}}{4 \text{ total}} = \frac{x \text{ increase}}{400 \text{ total}}$$

6. Susie has saved \$89.15 to buy a bike. She recently found 3 nickels, 2 dimes, and 5 quarters. After she adds these coins to her savings, how much money will she have to buy her new bike?

7. Susan has a piece of wood ten meters long. She cut two segments of wood from the piece. The first segment was 2.30 meters in length and the second segment was 1.20 meters in length. How much wood in meters, does Susan have left?

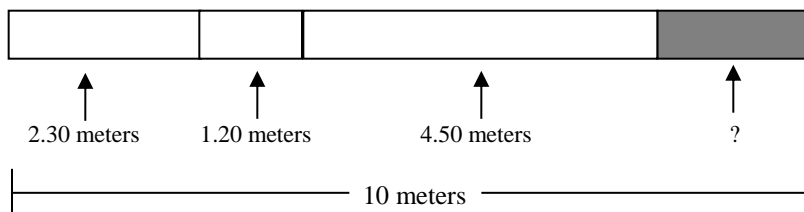


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## Long-Term Memory Review – Grade 6

### Review 4

1. Write 15.005 in words. \_\_\_\_\_
  
2. Write three hundred fifty-two and four hundredths as a numeral. \_\_\_\_\_
  
3. Add:  $1395.261 + 5.1 + 17.21$
  
4. Multiply:  $\frac{1}{2} \cdot \frac{2}{3}$   
Reduce if possible.
  
5. Joe wants to add to his sticker collection. He wants to increase his collection by 75%. If he has 1400 stickers in his collection now, how many stickers does he need to add to his collection?
  
6. Sandy has saved \$90.10 to buy a bike that costs \$100. She recently found 2 nickels, 3 dimes, and 4 quarters. When she adds these coins to her savings, how much more money will she need to buy her new bike?
  
7. Susan has a piece of wood ten meters long (see figure below). She cut three segments of wood from the piece. The first segment was 2.30 meters in length, the second segment was 1.20 meters in length and the third segment was 4.50 meters in length. How much wood in meters, does Susan have left?





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## Quiz

1. Write 18.105 in words. \_\_\_\_\_
2. Write two and twenty-nine thousandths as a numeral. \_\_\_\_\_
3. Add:  $395.261 + 1.5 + 17.21$
4. Multiply:  $\frac{1}{2} \cdot \frac{1}{3}$   
Reduce if possible.
5. Joe wants to add to his sticker collection. He wants to increase his collection by 10%. If he has 1400 stickers in his collection now, how many stickers does he need to add to his collection?  
A) 1.4                  B) 10                  C) 14                  D) 140
6. Susie has saved \$89.15 to buy a bike. She recently found 3 nickels, 2 dimes, and 5 quarters. When she adds these coins to her savings, how much money will she have to buy her new bike?
7. Susan has a piece of wood ten meters long. She cut three segments of wood. The first segment was 1.7 meters in length, the second segment was 2.35 meters in length, and the third segment was 3.17 meters in length. How much wood in meters, does Susan have left?  
A) 2.78 m                  B) 2.88 m                  C) 4.31 m                  D) 7.22 m



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## ANSWERS

### Review 1 Answers

1. *Thirteen and one hundred fifty-two thousandths.*
2. 6.5
3. 23.91
4.  $\frac{1}{7}$
5.  $\frac{20 \text{ increase}}{100 \text{ total}} = \frac{280 \text{ increase}}{1400 \text{ total}}$

### Review 2 Answers

1. *Ten and ten hundredths or ten and one tenth.*
2. 10.23
3. 363.95
4.  $\frac{3}{8}$
5. \$95.70
6. 8 m

### Review 3 Answers

1. *Two hundred eighteen and fifteen hundredths.*
2. 90.35
3. 422.8361
4.  $\frac{2}{15}$

5.  $\frac{1 \text{ increase}}{4 \text{ total}} = \frac{100 \text{ increase}}{400 \text{ total}}$
6. \$90.75
7. 6.50 m.

### Review 4 Answers

1. *Fifteen and five thousandths.*
2. 352.04
3. 1417.571
4.  $\frac{1}{3}$
5. 1050 stickers
6. \$8.50
7. 2 m

### Quiz Answers

1. *Eighteen and one hundred five thousandths.*
2. 2.029
3. 413.971
4.  $\frac{1}{6}$
5. D. 140
6. \$90.75
7. A. 2.78 m