Class / Homework

Review

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5. Determine each sum.

a) $-1.2 + (-0.3)$

c) $-23.6 - 4.57$

6. A technician checked the temperature of a freezer and found that it was $-15.7°C$. She noted that the temperature had dropped $7.8°C$ from the day before.

a) What was the temperature the day before?

7. Determine each sum.

a) $\frac{3}{4} + \frac{7}{8}$

b) $-1\frac{1}{2} + 3\frac{1}{3}$

c) $-4\frac{5}{6} + \left(-1\frac{5}{12}\right)$

Section 3.3: Subtracting

8. Determine each difference.

a) $-3.4 - (-4.8)$

d) $63.2 - 80.02$

10. Determine each difference.

b) $-\frac{5}{8} - \left(-\frac{7}{5}\right)$

c) $3\frac{5}{7} - \left(-6\frac{9}{10}\right)$

Section 3.4: Multiply

14. Determine each product.

b) $(-4.1)(2.3)$

d) $1\frac{3}{5} \times \left(-2\frac{1}{2}\right)$

Section 3.5: Dividing

16. [illegible]. Calculate each quotient to check.

a) $(-2.2) \div 0.4$

c) $\frac{9}{10} \div \left(-\frac{3}{2}\right)$

19. Determine each quotient.

b) $(-20.6) \div (-0.9)$

c) $\left(-\frac{9}{11}\right) \div \left(\frac{7}{5}\right)$

Section 3.6: BEDMAS

21. Evaluate

a) $-\frac{3}{5} + \left[\frac{1}{3} \times \left(-\frac{3}{4}\right)\right]$

b) $\left(-\frac{3}{5} + \frac{1}{3}\right) \times \left(-\frac{3}{4}\right)$

c) $-\left(-\frac{3}{5} + \frac{1}{3}\right) \times \left(-\frac{3}{4}\right)$

23. Evaluate each expression. Show your work to illustrate the order of operations.

a) $-1.2 \div (0.6) - [6.3 + (-3.4)]$

c) $-\frac{4}{5} \div \left[\frac{1}{2} + \left(-\frac{1}{6}\right)\left(-\frac{1}{6}\right) \times \frac{1}{4}\right]$

d) $\left(-\frac{2}{3}\right)\left(-\frac{2}{3}\right) \div \frac{2}{9} - \left(-\frac{4}{5}\right)$

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13. Use a calculator to evaluate. Write the answers to the nearest hundredth where necessary.

c) $\dfrac{0.67 - 4.2 \div (-0.2)}{(-7.3 + 8.6)^2}$

13. Use a calculator to evaluate. Write the answers to the nearest hundredth where necessary.

d) $\dfrac{8.9 \times (-3.1 + 22.7)^2 + 4.7}{(-9.6) \div 0.04 - 0.4}$

Lesson 3.2: Adding Rational Numbers

1. Determine each sum.

a) $-\frac{3}{4}+\frac{1}{2}$

b) $\frac{3}{4}+\frac{1}{2}$

c) $\frac{3}{4}+\left(-\frac{1}{2}\right)$

d) $-\frac{3}{4}+\left(-\frac{1}{2}\right)$

3. Sarah borrowed \$40.25 from her parents for a new sweater. She earns \$17.50 for a night of baby-sitting and gives this to her parents.

a) Write an addition statement to represent this situation. _____

b) How much does Sarah now owe? _____

4. Determine each sum.

a) $2\frac{2}{5}+\left(-4\frac{1}{2}\right)$

b) $-6\frac{3}{8}+\left(-1\frac{1}{5}\right)$

5. Determine each sum.

a) $-3.6+(-21.9)$

b) $-0.81+2.4$

c) $9.78+(-13.33)$

d) $4.88+(-12.26)$

Lesson 3.3: Subtracting Rational Numbers

1. Determine each difference.

a) $-\frac{3}{4}-\frac{1}{2}$

b) $3\frac{3}{5}-\left(-5\frac{1}{2}\right)$

c) $3\frac{2}{7}-4\frac{3}{5}$

d) $3\frac{1}{4}-\left(-2\frac{2}{3}\right)$

2. Two climbers leave base camp at the same time. Climber A ascends 20.4 m, while climber B descends 35.4 m. How far apart are the climbers? Write a subtraction statement using rational numbers to solve the problem.

3. Determine each difference.

a) $-4.7-5.9$

b) $0.94-1.35$

c) $-43.91-(-9.44)$

6. Determine the missing rational number in each addition statement.

a) $-\frac{2}{3}-\square=3\frac{5}{6}$

b) $\square-\left(-\frac{3}{4}\right)=-2\frac{1}{2}$

Lesson 3.4: Multiplying Rational Numbers

1. Determine each product.

a) $(-1.2)\times 0.3$ **b)** $0.34\times(-0.5)$ **c)** $(-0.6)\times(-0.15)$ **d)** $0.9\times(-1.2)$

e) $(1.19)(-13.2)$ **f)** $(-8.65)(-1.6)$

2. Determine each product.

a) $\frac{2}{5}\times\left(-\frac{1}{2}\right)$ **b)** $\left(-\frac{3}{2}\right)\times\left(\frac{1}{7}\right)$ **c)** $\left(-\frac{3}{4}\right)\times\left(-\frac{4}{5}\right)$

c) $\left(\frac{10}{7}\right)\left(-\frac{13}{8}\right)$ **d)** $\left(-4\frac{3}{5}\right)\left(-2\frac{5}{12}\right)$

3. From November 12th to November 21st, the temperature in Burnaby, B.C. dropped an average of 1.7°C each day. Suppose the temperature on the morning of November 12th was 11.4°C. What was the temperature on the morning of November 21st?

Lesson 3.5: Dividing Rational Numbers

1. Determine each quotient.

a) $(-1.6) \div 0.2$ **b)** $(-0.6) \div (-3)$ **c)** $16.4 \div (-5.5)$ **d)** $(-0.98) \div 12.4$

2. Calculate each quotient.

a) $\frac{1}{5} \div \left(-\frac{2}{5}\right)$ **b)** $\left(-\frac{2}{3}\right) \div \left(\frac{5}{6}\right)$ **c)** $\left(-\frac{3}{4}\right) \div \left(-\frac{5}{2}\right)$ **d)** $\frac{5}{9} \div \left(-\frac{2}{3}\right)$

c) $3\frac{1}{2} \div \left(-2\frac{1}{6}\right)$ **d)** $\left(-2\frac{1}{5}\right) \div \left(-4\frac{3}{4}\right)$

3. A diver descends 3.2 m in 5 min. What was his average rate of descent in metres per minute?

Lesson 3.6: Order of Operations with Rational Numbers

1. Evaluate.

a) $4.5+5.1\div1.7$

b) $-5.8-3.1\times0.5$

c) $\frac{2}{3}\times\left(-\frac{1}{2}\right)+\frac{5}{6}$

d) $\frac{3}{8}-\frac{9}{4}\div\left[\left(-\frac{5}{4}\right)+\left(-\frac{1}{10}\right)\right]$

e) $-4\frac{2}{3}\div\left[\left(-\frac{1}{3}\right)+4\frac{1}{6}\right]+\left(-3\frac{2}{5}\right)$

f) $1\frac{5}{9}-\left(-2\frac{1}{6}\right)+\left[4\frac{1}{4}+\left(-3\frac{1}{2}\right)\right]^2\div\frac{2}{5}$

4. Evaluate this expression. Round the answer to the nearest hundredth.

$$\frac{9.6\times12.6-5.1\div(-7.4)-0.6}{(-2.9)\div1.3-(-6.5)}$$