

Unit 5: Rational Number Arithmetic

ADVANCED

Name: _____ Date: _____

Show your work and give each answer as an exact value (integer, fraction in lowest terms, or decimal). Watch your signs.

1. Evaluate: $-\frac{3}{4} + \frac{5}{6} - (-\frac{2}{3})$. Write your answer as a fraction in lowest terms.

Answer: _____

2. Evaluate: $(-\frac{2}{5}) \times (-\frac{15}{8}) \times (\frac{4}{3})$. Write your answer as a fraction in lowest terms.

Answer: _____

3. Evaluate: $-\frac{5}{6} \div (-\frac{10}{9})$. Write your answer as a fraction in lowest terms.

Answer: _____

4. Evaluate: $-2.4 + 3.75 - 1.6 + (-0.15)$. Write your answer as a decimal.

Answer: _____

5. Evaluate using order of operations: $-\frac{3}{8} + \frac{1}{2} \times (-\frac{4}{5})$. Write your answer as a fraction in lowest terms.

Answer: _____

6. Evaluate: $(-\frac{1}{3} - \frac{1}{4}) \div (\frac{5}{6})$. Write your answer as a fraction in lowest terms.

Answer: _____

7. Evaluate: $(-2)^3 \times (-\frac{3}{4}) - 5$. Write your answer as an integer.

Answer: _____

8. A diver descends at a steady rate, reaching -37.5 meters after 15 minutes. How many meters does the diver descend per minute? Answer as a decimal (a positive number of meters).

Answer: _____

9. Evaluate: $\frac{7}{10} - \frac{2}{15} + (-\frac{1}{6})$. Write your answer as a fraction in lowest terms.

Answer: _____

10. The temperature was -8.5°C at 6 a.m. It rose 2.75°C each hour for 4 hours. What was the temperature (in $^\circ\text{C}$) at 10 a.m.? Answer as a decimal.

Answer: _____

11. Evaluate: $-\frac{5}{6} \times (\frac{3}{10} - \frac{4}{5}) \div (\frac{1}{4})$. Write your answer as a fraction in lowest terms.

Answer: _____