

- ___ 9. Determine this product. $\left(-\frac{3}{2}\right)\left(-\frac{5}{4}\right)$
- a. $\frac{11}{4}$ b. $\frac{15}{8}$ c. $\frac{15}{8}$ d. $\frac{11}{4}$
- ___ 10. Determine this product.
- $\left(-4\frac{1}{3}\right)\left(1\frac{4}{5}\right)$
- a. $7\frac{4}{5}$ b. $2\frac{8}{15}$ c. $-2\frac{8}{15}$ d. $-7\frac{4}{5}$
- ___ 11. The price of a share changed by $-\$1.45$. A person owns 190 shares. By how much did his shares change in value?
- a. $-\$85.50$ b. $-\$275.50$ c. $+\$275.50$ d. $-\$131.03$
- ___ 12. Determine this quotient.
- $\left(-\frac{5}{2}\right) \div \left(\frac{2}{7}\right)$
- a. $\frac{7}{5}$ b. $\frac{4}{35}$ c. $\frac{35}{4}$ d. $\frac{5}{7}$
- ___ 13. Determine this quotient.
- $1\frac{1}{2} \div \left(-2\frac{3}{5}\right)$
- a. $-1\frac{11}{15}$ b. $\frac{15}{26}$ c. $\frac{10}{39}$ d. $-3\frac{9}{10}$
- ___ 14. Evaluate.
- $\frac{5}{6} \div \left(\frac{4}{3} + \frac{1}{6}\right)$
- a. $\frac{25}{54}$ b. $\frac{8}{15}$ c. $\frac{5}{9}$ d. $\frac{19}{24}$
- ___ 15. A student has $\$1298$ in her savings account. She withdraws $\$95$ each week. A formula for calculating the amount of money remaining in her account is $A = T - 95w$, where T dollars is the original amount and w is the number of weeks she has been withdrawing money. Determine the amount of money remaining in her account after 13 weeks.
- a. $\$63$ b. $\$1235$ c. $\$1216$ d. $\$1190$

Short Answer

16. Order these numbers from least to greatest. $-\frac{3}{4}, -\frac{7}{9}, -\frac{5}{6}, -\frac{2}{3}$
17. Determine this sum. $-4\frac{3}{4} + \left(-1\frac{3}{5}\right)$
18. Determine this difference. $\frac{6}{5} - \left(-\frac{7}{5}\right)$
19. Evaluate this expression. $\frac{11}{2} - \left(-\frac{7}{5}\right) + \left(-\frac{13}{4}\right)$

20. Determine this product. $\left(3\frac{1}{2}\right)\left(-3\frac{2}{3}\right)$
21. Determine this product. $\left(\frac{3}{2}\right)\left(-\frac{3}{2}\right)\left(-\frac{5}{7}\right)$
22. Determine this quotient. $\left(-\frac{4}{3}\right) \div \left(-\frac{5}{3}\right)$
23. Determine this quotient. $\left(-8\frac{2}{5}\right) \div \left(-1\frac{4}{5}\right)$
24. Evaluate. $\frac{2}{3} - \left(-\frac{7}{12}\right)\left(-\frac{4}{21}\right)$
25. Evaluate. $1\frac{7}{8} \times 2\frac{2}{5} - 1\frac{3}{4}$
26. Evaluate. $\left[\frac{1}{3} + \frac{3}{5}\right] \div \left[\left(-\frac{5}{9}\right) \times \frac{12}{25}\right]$
27. Evaluate: $\left[\frac{8}{9} \times \left(-\frac{5}{12}\right)\right] \div \left(-\frac{4}{9}\right)$

Problem

28. Melissa earns \$45.25 working in a coffee shop, and \$18.25 for babysitting. She spends \$31.64 on art supplies and \$15.48 on a computer game.
- Write an addition statement to represent Melissa's income and expenditure.
 - How much money does Melissa have left?
29. Evaluate this expression. Show your work.
- $$-2\frac{3}{4} - (-4\frac{1}{3}) - 2\frac{5}{6}$$
30. A fishing resort has 21 cabins, all of which need to be repainted. The average cost of painting a cabin is \$490.47.
- Write a multiplication statement with rational numbers to determine the cost of painting the cabins.
 - The resort has a budget of \$10 524.00. How much money will be left in the budget after all the cabins are painted?
31. Evaluate. Show your work.
- $$\left[1\frac{5}{7} \times \left(-3\frac{5}{6}\right)\right] \div \left[\left(-2\frac{1}{10}\right) \div 0\frac{7}{8}\right]$$

January Exam Review - Unit 3 Answer Section

MULTIPLE CHOICE

1. ANS: B	PTS: 1	DIF: Easy	REF: 3.1 What Is a Rational Number?
2. ANS: A	PTS: 1	DIF: Moderate	REF: 3.2 Adding Rational Numbers
3. ANS: D	PTS: 1	DIF: Moderate	REF: 3.2 Adding Rational Numbers
4. ANS: D	PTS: 1	DIF: Moderate	REF: 3.2 Adding Rational Numbers
5. ANS: A	PTS: 1	DIF: Easy	REF: 3.3 Subtracting Rational Numbers
6. ANS: A	PTS: 1	DIF: Easy	REF: 3.3 Subtracting Rational Numbers
7. ANS: B	PTS: 1	DIF: Moderate	REF: 3.3 Subtracting Rational Numbers
8. ANS: A	PTS: 1	DIF: Moderate	REF: 3.3 Subtracting Rational Numbers
9. ANS: C	PTS: 1	DIF: Moderate	REF: 3.4 Multiplying Rational Numbers
10. ANS: D	PTS: 1	DIF: Moderate	REF: 3.4 Multiplying Rational Numbers
11. ANS: B	PTS: 1	DIF: Moderate	REF: 3.4 Multiplying Rational Numbers
12. ANS: C	PTS: 1	DIF: Easy	REF: 3.5 Dividing Rational Numbers
13. ANS: B	PTS: 1	DIF: Moderate	REF: 3.5 Dividing Rational Numbers
14. ANS: C	PTS: 1	DIF: Moderate	REF: 3.6 Order of Operations with
15. ANS: A	PTS: 1	DIF: Moderate	REF: 3.6 Order of Operations with

SHORT ANSWER

16. ANS:
 $-\frac{5}{6}, -\frac{7}{9}, -\frac{3}{4}, -\frac{2}{3}$
- PTS: 1 DIF: Difficult REF: 3.1 What Is a Rational Number?
17. ANS:
 $-\frac{7}{6}, \frac{7}{20}$
- PTS: 1 DIF: Moderate REF: 3.2 Adding Rational Numbers
18. ANS:
 $\frac{13}{5}$
- PTS: 1 DIF: Easy REF: 3.3 Subtracting Rational Numbers
19. ANS:
 $\frac{73}{20}$
- PTS: 1 DIF: Difficult REF: 3.3 Subtracting Rational Numbers

20. ANS:

$$-12\frac{5}{6}$$

PTS: 1

DIF: Moderate

REF: 3.4 Multiplying Rational Numbers

21. ANS:

$$\frac{45}{28}$$

PTS: 1

DIF: Difficult

REF: 3.4 Multiplying Rational Numbers

22. ANS:

$$\frac{4}{5}$$

PTS: 1

DIF: Easy

REF: 3.5 Dividing Rational Numbers

23. ANS:

$$4\frac{2}{3}$$

PTS: 1

DIF: Moderate

REF: 3.5 Dividing Rational Numbers

24. ANS:

$$\frac{5}{9}$$

PTS: 1

DIF: Easy

REF: 3.6 Order of Operations with Rational Numbers

25. ANS:

$$2\frac{3}{4}$$

PTS: 1

DIF: Easy

REF: 3.6 Order of Operations with Rational Numbers

26. ANS:

$$-\frac{7}{2}, \text{ or } -3\frac{1}{2}$$

PTS: 1

DIF: Moderate

REF: 3.6 Order of Operations with Rational Numbers

27. ANS:

$$\frac{5}{6}$$

PTS: 1

DIF: Difficult

REF: 3.6 Order of Operations with Rational Numbers

PROBLEM

28. ANS:

a) $45.25 + 18.25 + (-31.64) + (-15.48) = 16.38$

b) Melissa has \$16.38 left.

PTS: 1

DIF: Moderate

REF: 3.2 Adding Rational Numbers

29. ANS:

$$\begin{aligned} & -2\frac{3}{4} - (-4\frac{1}{3}) - 2\frac{5}{6} \\ & = -\frac{11}{4} + \frac{13}{3} - \frac{17}{6} \\ & = -\frac{33}{12} + \frac{52}{12} - \frac{34}{12} \\ & = \frac{-15}{12} \\ & = -1\frac{1}{4} \end{aligned}$$

PTS: 1

DIF: Moderate

REF: 3.3 Subtracting Rational Numbers

30. ANS:

a) $21 \times 490.47 = 10\,299.87$

b) $\$10\,524.00 - \$10\,299.87 = \$224.13$

PTS: 1

DIF: Moderate

REF: 3.4 Multiplying Rational Numbers

31. ANS:

$$\begin{aligned} & \left[1\frac{5}{7} \times \left(-3\frac{5}{6} \right) \right] \div \left[\left(-2\frac{1}{10} \right) \div 0\frac{7}{8} \right] \\ & = \left[\frac{12}{7} \times \left(-\frac{23}{6} \right) \right] \div \left[\left(-\frac{21}{10} \right) \div \frac{7}{8} \right] \\ & = \left[\frac{12}{7} \times \left(-\frac{23}{6} \right) \right] \div \left[\left(-\frac{21}{10} \right) \times \frac{8}{7} \right] \\ & = \left(-\frac{46}{7} \right) \div \left(-\frac{12}{5} \right) \\ & = \left(-\frac{46}{7} \right) \times \left(-\frac{5}{12} \right) \\ & = \frac{115}{42} \end{aligned}$$

PTS: 1

DIF: Easy

REF: 3.6 Order of Operations with Rational Numbers