



Test 1 Review compacted

Name

Key

Date

Period

Complete each decimal problem. Circle your answers. You MUST SHOW YOUR WORK to receive full credit.

Find each sum or difference. All fractions must be in simplest form.

1. $6\frac{4}{9} + 13\frac{5}{6} =$ $6\frac{8}{18} + 13\frac{15}{18}$ $19\frac{23}{18}$ $20\frac{5}{18}$	2. $3.025 - 1.98 =$ 3.025 -1.980 1.045	3. $9 - 2\frac{5}{7} =$ $8\frac{7}{7}$ $-2\frac{5}{7}$ $6\frac{2}{7}$	4. $618 + 0.618 + 618.618 =$ 618.000 0.618 618.618 1237.236	5. $18\frac{1}{2} - 4\frac{3}{4} =$ $18\frac{2}{4} - 4\frac{3}{4}$ $-4\frac{3}{4}$ $13\frac{3}{4}$
--	--	---	--	--

Multiply or Divide. All fractions must be in simplest form.

6. $5\frac{3}{8} \times 8 =$ $\frac{43}{8} \times \frac{8}{1}$ 43	7. $0.238 \div 0.07 =$ 0.238 $\div 0.07$ 3.4	8. $(6.76)(1.21) =$ 6.76 $\times 1.21$ 676 13520 67600 8.1796	9. $1\frac{7}{13} \div \frac{15}{52} =$ $1\frac{7}{13} \times \frac{52}{15}$ $1\frac{7}{13} \times \frac{52}{15}$ $5\frac{1}{3}$	10. $0.67 \times 0.03 =$ 0.67 $\times 0.03$ 201 0.0201
11. Write 5^3 in standard form. 125	12. Write 10^5 in expanded form. $10 \cdot 10 \cdot 10 \cdot 10 \cdot 10$	13. Write $3 \times 3 \times 3 \times 3$ in exponential form. 3^4	14. Vocabulary The value of any number to the zero power is 1	15. List the following from least to greatest: $2^5, 3^3, 4^2$. $4^2, 3^3, 2^5$

Simplify.

16. $60 - 12 \div 3 + 15$ $60 - 4 + 15$ $56 + 15$ 71	17. $(54 - 4) \div 10$ $50 \div 10 = 5$ 5	18. $45 - 7 \times 2 - (8 + 6)$ $45 - 14 - 14$ $31 - 14$ 17	19. $19 + 12(8 - 3) \div 5$ $19 + 12 \cdot 5 \div 5$ $19 + 60 \div 5$ $19 + 12 = 31$
20. $189 - 33 \cdot 4$ $189 - 132$ 57 19	21. Evaluate if $r = 1, s = 10, t = 5$ $s - t + r \times s \div t$ $10 - 5 + 1 \times 10 \div 5$ $10 - 5 + 2 = 5 + 2 = 7$	22. Evaluate if $a = 2$ and $b = 8$ $b^2 - a(b + a)$ $8^2 - 2(8 + 2)$ $64 - 2(10)$ $64 - 20 = 44$	23. Evaluate if $x = 3, y = 4, z = 12$ $\frac{xz}{15 - xy}$ $\frac{3 \cdot 12}{15 - 3 \cdot 4}$ $\frac{36}{15 - 12}$ $\frac{36}{3} = 12$

Identify the property shown by each mathematical statement.

24. $0 + x = x$ Additive Identity	25. $3(g + 7) = 3 \cdot g + 3 \cdot 7$ Distributive Property	26. $4 \times 9 = 9 \times 4$ Commutative Property of Multiplication	27. $(-a) + a = 0$ Additive Inverse
28. $(8 + 9) + 3 = 8 + (9 + 3)$ Associative Property of Addition	29. $7 \cdot \frac{1}{7} = 1$ Multiplicative Inverse	30. $b(1) = b$ Multiplicative Identity	31. $75(0) = 0$ Multiplicative Property of Zero

Distribute.

32.
 $(xy - 3)13$
 $13xy - 39$

33.
 $x(x + 5)$
 $x^2 + 5x$

Factor completely.

34.
 $48x + 16$
 $8(6x + 2)$
 $2(3x + 1)$
 $16(3x + 1)$

35.
 $a^2 + ab - ac$
 $a(a + b - c)$

Solve.

36.
At the supermarket, Jalen bought three kinds of meat. He purchased $\frac{5}{8}$ pound of roast beef, $\frac{1}{4}$ pounds of ham, and $\frac{11}{16}$ pounds of turkey. Which choice describes the total weight of the meats?

- a. less than 1 pound
- b. between 1 and $1\frac{1}{2}$ pounds
- ☒ c. between $1\frac{1}{2}$ and 2 pounds
- d. more than 2 pounds

$$\frac{5}{8} + \frac{1}{4} + \frac{11}{16}$$

$$\frac{10}{16} + \frac{4}{16} + \frac{11}{16} = \frac{25}{16} = 1\frac{9}{16}$$

37.
When Derek planted a tree it was 36 inches tall. The tree grew $1\frac{1}{4}$ inches per year. The tree is now $44\frac{3}{4}$ inches tall. How many years ago did Derek plant the tree?

$$44\frac{3}{4} - 36 = 8\frac{3}{4}$$

$$8\frac{3}{4} \div 1\frac{1}{4} = 7$$

$$\frac{35}{14} \times \frac{4}{5} = \frac{7}{1} = 7 \text{ yr.}$$

38.
Jasmine feeds her cat $\frac{2}{3}$ cup of food each day. There are 6 cups of cat food in the bag. How many days will the bag of cat food last?

$$6 \div \frac{2}{3} = 9$$

$$\frac{36}{1} \times \frac{3}{8} = \frac{9}{1} = 9 \text{ days}$$

39.
A rectangle has a length of $4\frac{1}{6}$ inches and a width of $1\frac{2}{5}$ inches. What is the area of the rectangle, in square inches?

$$4\frac{1}{6} \times 1\frac{2}{5}$$

$$\frac{25}{6} \times \frac{7}{5} = \frac{35}{6} = 5\frac{5}{6} \text{ in}^2$$