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. $6\frac{4}{9} + 13\frac{5}{6} =$

$\frac{58}{9} + \frac{83}{6}$

$\frac{116}{18} + \frac{249}{18}$

$\frac{365}{18} = 20\frac{5}{18}$

2. $3.025 - 1.98 =$

3.025
1.98
5.005

5.005

3. $9 - 2\frac{5}{7} =$

$8\frac{7}{7}$
$-2\frac{5}{7}$

$6\frac{2}{7}$

4. $618 + 0.618 + 618.618 =$

618.0
0.618
618.618
1237.236

1237.236

5. $18\frac{1}{2} - 4\frac{3}{4} =$

$18\frac{2}{4}\ \frac{6}{4}$
$-4\frac{3}{4}\ \frac{3}{4}$
$13\ \frac{3}{4}$

$13\frac{3}{4}$

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

6. $5\frac{3}{8} \times 8 =$

$\frac{43}{8} \cdot \frac{8}{1}$

43

7. $0.238 \div 0.07 =$

3.4
.07) .238
21
28

3.4

8. $(6.76)(1.21) =$

6.76
1.21
676
1352
676
8.1796

8.1796

9. $1\frac{7}{13} \div \frac{15}{52} =$

$\frac{20}{13} \div \frac{15}{52}$

$\frac{20}{13} \cdot \frac{52}{15}$ (4, 4)

$\frac{16}{3} = 5\frac{1}{3}$

10. $0.67 \times 0.03 =$

.67
.03
201
000
.0201

.0201

11. Write 5^3 in standard form.

125

12. Write 10^5 in expanded form.

10·10·10·10·10

13. Write 3 x 3 x 3 x 3 in exponential form.

3^4

14. **Vocabulary**

The value of any number to the zero power is

one.

15. List the following from least to greatest: $2^5, 3^3, 4^2$.

32, 27, 16

$4^2, 3^3, 2^5$

Simplify.

16. $60 - 12 \div 3 + 15$

71

17. $\frac{54 - 4 \div 10}{15}$

804

18. $45 - 7 \times 2 - (8 + 6)$

17

19. $19 + 12(8 - 3) \div 5$

21

20. $\frac{189 - 33 \cdot 4}{3}$

19

21. Evaluate if r = 1, s = 10, t = 5

$s - t + r \times s \div t$

7

22. Evaluate if a = 2 and b = 8

$b^2 - a(b + a)$

44

23. Evaluate if x = 3, y = 4, z = 12

$\frac{xz}{15 - xy}$

$3 \cdot 12$

$15 - (3 \cdot 4)$

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

26. $4 \times 9 = 9 \times 4$

commutative multiplication

27. $(-a) + a = 0$

inverse of addition

28. $(8 + 9) + 3 = 8 + (9 + 3)$

Associative

29. $7 \cdot \frac{1}{7} = 1$

inverse of multiplication

30. $b(1) = b$

multiplicative identity

31. $75(0) = 0$

zero property

Distribute.

32. $(xy - 3)13$

$13xy - 39$

33. $x(x + 5)$

$x^2 + 5x$

Factor completely.

34. $48x + 16$

$16(3x + 1)$

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 ½ pounds
c. between 1 ½ and 2 pounds
d. more than 2 pounds

C

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?

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

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

7 years

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?

9 days

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

$6 \cdot \frac{3}{2} = \frac{18}{2}$

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?

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

$5\frac{5}{6}$ sq in.

$\frac{25}{6} \cdot \frac{7}{5} = \frac{35}{6}$