

Name: _____

Key

Date: _____

PRE-ALGEBRA QUARTER 1 TEST REVIEW

The BEST way to study for the Quarterly Exam is to REDO all the tests that you were given this quarter. You can expect similar questions to what we have already asked on previous tests.

Perform the indicated operation.

1. $0.5 + 42.6$

$$\begin{array}{r} 42.6 \\ + 0.5 \\ \hline 43.1 \end{array}$$

2. $7.04 - 3.594$

$$\begin{array}{r} 7.040 \\ - 3.594 \\ \hline 3.446 \end{array}$$

3. 5.6×1.2

$$\boxed{6.72}$$

4. $4.5 \div 0.03$

$$\boxed{150}$$

5. $2\frac{1}{3} + 5\frac{5}{7}$

$$\boxed{8\frac{1}{21}}$$

6. $10\frac{1}{6} - 8\frac{3}{4}$

$$\boxed{1\frac{5}{12}}$$

7. $4\frac{2}{5} \times 2\frac{3}{11}$

$$\boxed{10}$$

8. $1\frac{2}{9} + \frac{11}{13}$ *Keep change Flip*

$$\boxed{1\frac{4}{9}}$$

9. $0 - 18$

$$\boxed{-18}$$

10. $-3 - (-6)$

$$\begin{array}{r} -3 + 6 \\ \hline 3 \end{array}$$

11. $(-3)(-9)$

$$\boxed{27}$$

12. $(-5)^2$

$$\boxed{25}$$

13. -5^2

$$\boxed{-25}$$

14. $-|-9|$

$$\boxed{9}$$

15. $-48 \div 4$

$$\boxed{-12}$$

16. $-10 + 21$

$$\boxed{11}$$

17. $5 - 5.5$

$$\begin{array}{r} 5 + (-5.5) \\ \hline -0.5 \end{array}$$

18. $(-\frac{3}{4})^2$

$$\boxed{\frac{9}{16}}$$

19. $(-2.1)(-4)$

$$\boxed{8.4}$$

20. $(100)(1.8)$

$$\boxed{180}$$

21. Simplify the algebraic expression when $a = 2$, $b = -6$ and $c = -3$ $\frac{b^2}{a} + -c$

$$\frac{(-6)^2}{2} + -(-3)$$

$$\frac{36}{2} + 3 \rightarrow \boxed{21}$$

Simplify each numerical expression.

22. $(-4\frac{1}{6} \div 5) \times (-\frac{2}{5})$

$$\boxed{\frac{1}{3}}$$

23. $5.2 - 8.9 + (-4.3)$

$$\boxed{-8}$$

24. $(-5.4 + 6.2)(1.3 + -0.4)$

$$\boxed{0.72}$$

For 25-29, identify the property represented by the statement.

25. $(x)(y) = (y)(x)$
 Commutative
 \otimes

26. $-4 + 0 = -4$
 Identity
 \oplus

27. $(3 + 4) + 5 = 3 + (4 + 5)$
 Associative
 \oplus

28. $a(b - c) = ab - ac$
 Distributive

29. $\frac{1}{2} \cdot 2 = 1$
 Inverse
 \otimes

For 30 - 33, simplify each expression by combining like-terms.

30. $(6x) - (4x)$

$$\boxed{-10x}$$

31. $0.5y + (-1.3y)$

$$\boxed{-0.8y}$$

32. $5m + 14 - 7m - 32$

$$\boxed{-2m - 18}$$

33. $\frac{5}{15}x + 5.2 + (\frac{-6}{15}x) - 4.1$

$$\boxed{-\frac{1}{15}x + 1.1}$$

In 34 - 36, translate each verbal statement into an algebraic expression.

34. 9 less than a number

$$\boxed{x - 9}$$

35. Twice the difference of a number and 3

$$\boxed{2(x - 3)}$$

36. 3 increased by a number

$$\boxed{3 + x}$$

In 37 - 42, simplify each expression as a single power to a positive exponent by using laws of exponents. Evaluate if possible.

37. $(x^3)^4$

$$\boxed{x^{12}}$$

38. 17^0

$$\boxed{1}$$

39. $(3^2)^{-2}$

$$3^{-4}$$

$$\frac{1}{3^4}$$

$$\boxed{\frac{1}{81}}$$

40. 6^{-3}

$$\frac{1}{6^3}$$

$$\boxed{\frac{1}{216}}$$

41. $5^2 \times 5^{-1}$

$$5^1$$

$$\boxed{5}$$

42. $3^4 \div 3^{-2}$

$$3^6$$

$$\boxed{729}$$