

Pre-Algebra
Spiral Set B

Multiple Choice: Circle the letter of the correct answer. Show all necessary work in the space provided.

1. Doug earns \$10.50 per hour working at a restaurant. On Friday he spent $1\frac{3}{4}$ hours cleaning, $2\frac{1}{3}$ hours doing paperwork, and $1\frac{5}{12}$ hours serving customers. What were Doug's total earnings?

- A. \$46.97 B. \$47.25
C. \$53.00 D. \$57.75
-

2. How can $8^3 \cdot 8^{-6}$ be written using a single exponent?

- A. 8^{-3} B. 8^3
C. 8^9 D. 8^{-18}
-

3. Which of the following expressions represents an *irrational* number?

$\sqrt{121}$ $\sqrt{7} - \sqrt{7}$ $\frac{\sqrt{8}}{\sqrt{8}}$ $\sqrt{150}$

- A. $\sqrt{121}$ B. $\sqrt{7} - \sqrt{7}$
C. $\frac{\sqrt{8}}{\sqrt{8}}$ D. $\sqrt{150}$
-

4. Simplify the following numerical expression: $2^4 - 20 + |-3|$

- A. -15 B. -1
C. -9 D. -7

5. Which value is **not** equivalent to $\frac{1}{1000}$?

A. 10^{-3} B. 0.001

C. $\frac{10^{-9}}{10^{-6}}$ D. $\frac{1}{10^{-3}}$

6. Which of the following statements about the number 0 is **false**?

A. 0 is a whole number

B. 0 is a natural number

C. 0 is a rational number

D. 0 is an integer

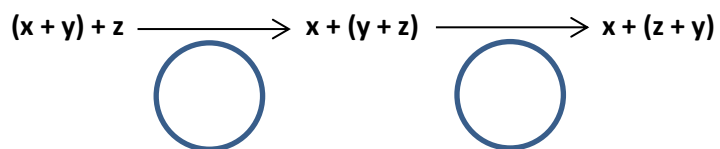
7. Which of the following values will fall between 11 and 12 on a number line?

A. $\sqrt{12}$ B. $\sqrt{11} + 0.5$

C. $\sqrt{132}$ D. $\sqrt{156}$

Extended Response: Show all necessary work.

8. The following flow diagram shows that the expression $(x + y) + z$ is equivalent to the expression $x + (z + y)$. State the property that was used to justify each step. Use the letter **A** for the associative property and the letter **C** for commutative property.



9. The table below shows four transactions (*in dollars*) for a bank account. Positive numbers represent deposits and negative numbers represent withdrawals. The balance of the account prior to the transactions is \$75.50. What is the balance of the account after the transactions?

Transactions	
Date	Amount
11/4	60.68
11/4	-25.16
11/7	-82.05
11/11	55.95

10. What is the value of $\left(-\frac{1}{4} - \frac{1}{2}\right) \div -\frac{4}{7}$?