



7th Math #2

Subject: Mathematics

State: Ohio

Student Name: _____

Teacher Name: _____

School Name: _____

1 For parts (a)-(e), select Yes or No to indicate whether each of these expressions is equivalent to $2(2x + 1)$.

- (a) $4x + 2$ Yes No
- (b) $2(1 + 2x)$ Yes No
- (c) $2(2x) + 1$ Yes No
- (d) $2x + 1 + 2x + 1$ Yes No
- (e) $x + x + x + x + 1 + 1$ Yes No

2 Which of the following is equivalent to the expression below?

$$(-3m + 5) + (m - 11)$$

(A) $4m - 16$

(B) $-4m - 6$

(C) $2m - 16$

(D) $-2m - 6$

3 Which expression represents a simplified form of the algebraic expression shown below?

$$\frac{1}{2}(2x + 4) + x$$

(A) $x + 2$

(B) $2x + 4$

(C) $2x + 2$

(D) $3x + 2$

4 Stephanie wrote two rules on the board.

$$m = 0.56x - 0.25$$

$$n = 0.20x - 0.03$$

Find the sum of m and n .

(A) $0.76x - 0.28$

(B) $0.76x - 0.22$

(C) $0.31x - 0.17$

(D) $0.36x - 0.22$

5 Use the following equation to find the value of m and b .

$$2(4x - 0.7) = mx + b?$$

(A) 4 and -0.7

(B) 8 and -0.7

(C) 8 and 1.4

(D) 8 and -1.4

6 Simplify the expression below.

$$13y + x - 7y$$

7 Which expression represents a simplified form of the algebraic expression shown below?

$$\frac{1}{2}(2x + 4) + x$$

(A) $x + 2$

(B) $2x + 4$

(C) $2x + 2$

(D) $3x + 2$

8 Which expressions are equivalent to the expression $(x - y)\frac{5}{8} - \frac{1}{4}x + y$?

Select **each** correct answer.

(A) $\frac{3}{8}x + \frac{3}{8}y$

(B) $\frac{3}{8}x + 1\frac{5}{8}y$

(C) $\frac{5}{8}x - y - \frac{1}{4}x + y$

(D) $\frac{5}{8}x - \frac{5}{8}y - \frac{1}{4}x + y$

(E) $\frac{5}{8}x - \frac{1}{4}x + y - \frac{5}{8}y$

9 Determine which expression is equivalent to $\frac{3}{4} - x\left(\frac{1}{2} - \frac{5}{8}\right) + \left(-\frac{3}{8}x\right)$.

(A) $-\frac{3}{4}x$

(B) $\frac{1}{2}x$

(C) $\frac{1}{8} - \frac{7}{8}x$

(D) $\frac{3}{4} - \frac{1}{4}x$

10 Select the expression equivalent to $(4x + 3) + (-2x + 4)$.

(A) $-2x + 12$

(B) $-8x + 12$

(C) $6x + 7$

(D) $2x + 7$

11 Select **all** expressions that are equivalent to $-3.75 + 2(-4x + 6.1) - 3.25x$.

(A) $7x - 2x + 8.1$

(B) $8.45 - 8x - 3.25x$

(C) $-1.75 - 7.25x + 6.1$

(D) $-11.25x + 12.2 - 3.75$