

Name: _____ Date: _____ Class: _____

Algebra I: Classwork Week of 10/05/26

Monday, 10/05/26

- 1) A man has \$10.80 in half-dollars, quarters, dimes, and nickels, with the same number of each kind of coin. How many coins does he have?
- 2) The sum of \$60 is divided between two brothers so that the elder gets \$5 more than the younger. How much should each receive?
- 3) The capacity of one water tank is one-third the capacity of another. Together the tanks hold 54 gallons. How many gallons does each tank hold?

Tuesday, 10/06/26

1) Find the value of each of the following:

a) $2a + b$ when $a = \frac{1}{2}$ and $b = 3$

b) $2(a + 3b)$ when $a = \frac{1}{2}$ and $b = 2$

c) $(8x - 1)(2x + 3)$ when $x = 1$

d) $\frac{7a}{b}$ when $a = 8$ and $b = 7$

e) $\frac{a+b}{3}$ when $a = \frac{1}{2}$ and $b = 6$

2) Simplify:

a) $2(3x + 1) + 2x - 2$

b) $7(3x - 2) + 2(3x + 7)$

c) $\frac{4x-8}{4}$

d) $\frac{1}{3}(3 + 6x)$

3) Evaluate:

a) $3(2x + 1) + 4x$ *when* $x = 1$

b) $2x + 5(x - 3)$ when $x = 3$

c) $4(b + 1) + 2(5b - 2)$ when $b = \frac{1}{2}$

d) $5(3 + x)(1 - x)$ when $x = 1$

Wednesday, 10/07/26

- 1) If 4 is added to a certain number, and the sum is multiplied by 3, the resulting number is 5 times the original number. Find the original number.

2) The number obtained by adding 7 to a certain number is three times the number obtained by subtracting 9 from it. Find the number.

3) If 15 is subtracted from a number and the remainder is multiplied by 3, the product is twice the original number. Find the original number.

4) If 8 is added to a number and the sum is divided by 2, the quotient is equal to the number itself. Find the number.