

Algebra 1 CC

Castle Learning Assignment #1

2018-19

Due before school on Halloween

1. Solve for  $x$ :  $8x + 9 = 5x + 6$

- 1. -1      2. 1
- 3. 5        4. -3/13

2. Solve for  $x$ :  $0.5x + 1.8 = -0.7$

- 1. -0.5      2. 0.5
- 3. 5            4. -5

3. What is the value of  $x$  in the equation  $6(x - 2) = 36 - 10x$ ?

- 1. -6      2. 1.5
- 3. 3        4. 6

4. Find the sum of  $3x^2 + 5x - 1$  and  $x^2 - 2x - 7$ .

- 1.  $2x^2 - 7x - 6$
- 2.  $-2x^2 - 7x + 6$
- 3.  $4x^2 - 3x + 8$
- 4.  $4x^2 + 3x - 8$

5. Express  $(4x - 5)(6x + 5)$  as a trinomial.

- 1.  $24x^2 - 10x - 25$
- 2.  $24x^2 - 50x - 25$
- 3.  $24x^2 - 25$
- 4.  $-24x^2 + 25$

6. Linda paid \$48 for a jacket that was on sale for 25% of the original price. What was the original price of the jacket?

- 1. \$60      2. \$72
- 3. \$96      4. \$192

7. If  $12x = 4(x + 5)$ , then  $x$  equals

- 1. 1/12      2. 5/8
- 3. 1.25      4. 2.5

8. Solve for  $x$ :  $1.4x - 0.9 = 3.3$

- 1. 1.2      2. 3
- 3. 4.2      4. 5.98

9. The product of  $2x - 3$  and  $x + 4$  can be expressed as

1.  $2x^2 + 5x - 12$
2.  $3x + 1$
3.  $2x^2 + x - 12$
4.  $2x^2 - 12$

10. Solve for  $x$ :  $3x + 4 = 5(x - 8)$

1. 1.5
2. 6
3. 11
4. 22

11. If  $a = -2$  and  $b = 3$ , what is the value of  $-3a^2b$ ?

1. -36
2. 36
3. -54
4. 54

12. The product of  $4x^2y$  and  $2xy^3$  is

1.  $8x^2y^3$
2.  $8x^3y^3$
3.  $8x^3y^4$
4.  $8x^2y^4$

13. If  $a = -2$  and  $b = -3$ , what is the value of  $3a^2b$ ?

1. 18
2. 36
3. -18
4. -36

14. The expression  $15 - 3[2 + 6(-3)]$  simplifies to

1. -45
2. -33
3. 63
4. 192

15. At the beginning of her mathematics class, Mrs. Reno gives a warm-up problem. She says, "I am thinking of a number such that 6 less than the product of 7 and this number is 85." Which number is she thinking of?

1.  $11\frac{2}{7}$
2. 13
3. 84
4. 637

16. Chad had a garden that was in the shape of a rectangle. Its length was twice its width. He decided to make a new garden that was 2 feet longer and 2 feet wider than his first garden. If  $x$  represents the original width of the garden, which expression represents the difference between the area of his new garden and the area of the original garden?

1.  $6x + 4$
2.  $2x^2$
3.  $x^2 + 3x + 2$
4. 8

17. Which expression represents the area of the rectangle?



1.  $5x - 4$
2.  $10x - 8$
3.  $4x^2 - 21$
4.  $4x^2 + 5x - 21$

18. What is the product of  $-6x^3$  and  $2x^5$ ?

1.  $-4x^8$
2.  $-12x^8$
3.  $-12x^{15}$
4.  $-4x^{15}$

19. Solve for  $x$ :  $7.32 = 0.05x - 0.18$

1. 150
2. 158
3. 165
4. 168

20. Solve for  $x$ :  $3(x - 2) = -9$

1. 1            2. -1

3.  $-7/3$       4.  $3/7$