

Multiplying Polynomials Practice (DO NOT WRITE ON THIS PAPER)

Expanding polynomials, a key topic in BC Math 10, involves the reverse process of factoring. Mastering the ability to multiply polynomials and combine like terms accurately is a fundamental and valuable mathematical skill. Visit hunkim.com/10 for more BC Math 10 resources.

- Applying the distributive property between two polynomials, including trinomials
- Connecting the product of binomials with an area model

1. $-3x(x - 1)$

2. $2x^2(2 - 3x + 4x^2)$

3. $(x - 3)(x - 5)$

4. $(3x - 2)(x - 3)$

5. $(2x - 7)^2$

6. $-3(5 - 2x)^2$

7. $2(3x - 1)(x - 2)$

8. $(x + 2)(-2)(x - 4)$

9. $(x - 1)(x^2 + x + 1)$

10. $(a + b)(a^2 - ab + b^2)$

11. $(x^2 + x + 1)(1 - x - x^2)$

12. Expand $(x - 2)^2(x + 1)^2$

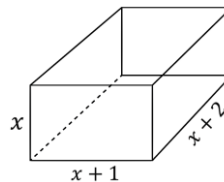
13. $(3x - 3y)^3$

14. $(2x - 1)^4$

15. Represent the product of the following factors using algebra tiles:
 $(3x + 2)(x - 1)$

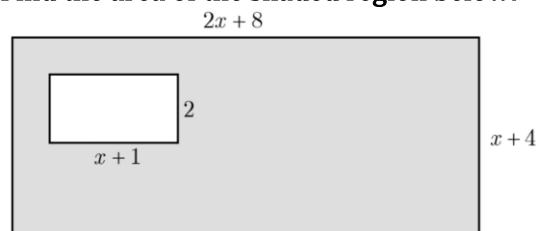
16. The length of an edge of a cube is $x - 1$.
- Find the volume of the cube in the form $ax^3 + bx^2 + cx + d$.
 - Find the area of the cube in the form $ax^2 + bx + c$.
 - Find the volume given $x = 3$

17. See box below:

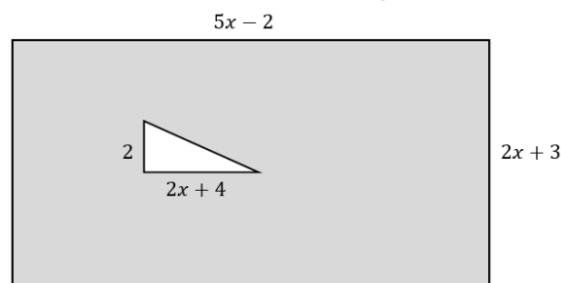


Find the surface area of the top of the box only in the form $ax^2 + bx + c$

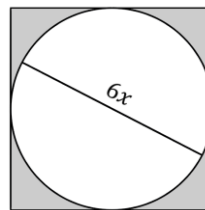
18. Find the area of the shaded region below:



19. Find the area of the shaded region below:

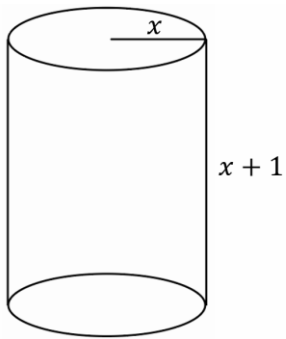


20. Find the area of the shaded region below:



21. The diameter of a circle is $2x + 4$.
- Area in expanded form
 - Circumference?

22. See cylinder below:



- a. Volume in expanded form?
- b. Total surface area including the bottom (in expanded form)

Challenge

23. Find the area of the shaded region.

