

Show your work. For graphs, use a pencil and straight edge.

Factoring Fridays

1. Given $f(x) = 3x$. Simplify $f(2)$.
2. Find $g(x) = 2x - 7$ for $x = 9$.
3. Given $h(x) = \frac{5x + 7}{11}$. Evaluate the expression $h(3)$.
4. For a circle, $A = \pi r^2$. Find the area, A , for $r = 5$ in terms of π .
5. For a square, $A = s^2$. Find the area of a square, A , with $s = 4.5$.
6. For a rectangle, $A = l \times w$. Calculate A when $l = 13$ and $w = 5.5$.

Solve for the value of x .

7. $3x = 12$

8. $2x = \pi$

9. $2(3x - 4) = 3(x + 2) + 1$

10. $x - 6 = \frac{1}{3}(6 - 9x)$

11. $1 = \frac{1}{3}x - 10$

Combine like terms

12. $x^2 + 2x - 6 - 2x^2 - x + 14$

13. $5(a^2 - 2a + 3) - 2(2a^2 - 5a - 4)$

14. $x^2 + 2xy - y^2 + 3x^2 - xy + 4y^2$

What is the slope and y -intercept of each equation?

15. $y = -2x - 3.5$

16. $2y = 8x + 4$

17. $9x - 3y = 6$

Apply the distributive property

18. $x(x + 5)$

19. $3x(x^2 - 2x + 11)$

20. $x(x^2 - 4x + 5) + 21$

21. $(x + 1)(x + 3)$

22. $(x + 2)(x + 3)$

23. $(x + 1)(x + 4)$