

Sample problem: Given the function $f(x) = -3x + 7$, find

a. $f(-5)$

$$\begin{aligned} f(-5) &= -3(-5) + 7 \\ &= 15 + 7 = \boxed{22} \end{aligned}$$

b. the value of x for which $f(x) = -5$

$$\begin{aligned} -3x + 7 &= -5 \\ -7 & \quad -7 \\ \hline -3x &= -12 \\ \boxed{x} &= \boxed{4} \end{aligned}$$

Part 1: Use $f(x) = \frac{x-1}{4}$, $g(x) = 5 - 2x$, and $h(x) = x^2 + 2$ to answer each question.

1. $f(17) =$ _____ 2. $g(4) =$ _____ 3. $h(2) =$ _____ 4. $f(x) = -6$; $x =$ _____ 5. $h(-3) =$ _____

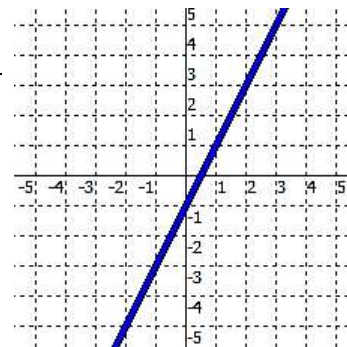
6. $g(x) = 11$; $x =$ _____ 7. $f(x) = 9$; $x =$ _____ 8. $f(9) =$ _____ 9. $f(2) =$ _____ 10. $g(x) = -17$; $x =$ _____

Part 2: Use $f(x) = -x + 4$, $g(x) = 10x - 8$, and $h(x) = \frac{x}{3} - 5$ to answer each question.

11. $f(2) + g(-3) =$ _____ 12. $f(10) - h(12) =$ _____ 13. $4g(2) =$ _____

14. $h(-3) * f(12) =$ _____ 15. $h(30) * g(-3) =$ _____ 16. $h(6) + 3g(1) - 2f(-5) =$ _____

Part 3: Use the graph of $y = f(x)$ to answer each question.



17. $f(1) =$ _____ 18. $f(-1) =$ _____ 19. $f(x) = 1; x =$ _____
20. $f(x) = -1; x =$ _____ 21. $f(3) =$ _____ 22. $f(0) =$ _____
23. $f(x) = 3; x =$ _____ 24. $f(x) = 0; x =$ _____ 25. $f(x) = 5; x =$ _____

Part 4: Use the chart to answer each question.

x	-3	-2	0	1	4	5	7	10
f(x)	4	0	6	2	-2	10	0	-3

26. $f(1)$ 27. $f(-2)$ 28. $f(x) = -2$ 29. $f(x) = 4$ 30. $f(10)$
31. $f(0)$ 32. $f(x) = 10$ 33. $f(x) = 0$ 34. $f(-3)$ 35. $f(x) = -3$