

Name _____ Date: _____

Factor each trinomial:

1. $x^2 + 24x - 25$

$$(x+25)(x-1)$$

2. $x^2 - 7x - 8$

$$(x-8)(x+1)$$

3. $x^2 - 2x - 24$

$$(x-6)(x+4)$$

4. $5x^2 - 14x - 3$

$$(x-3)(5x+1)$$

5. $2x^2 - 11x - 6$

$$(x-6)(2x+1)$$

6. $2x^2 + 17x - 9$

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

7. $3x^2 + 11x - 4$

$$(x+4)(3x-1)$$

8. $5x^2 + 9x - 2$

$$(x+2)(5x-1)$$

9. $x^2 + 4x - 21$

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

10. $3x^2 - 4x - 4$

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

11. $x^2 + 18x + 81$

$$(x+9)(x+9) \\ = (x+9)^2$$

12. $4x^2 + 4x + 1$

$$(2x+1)(2x+1) \\ = (2x+1)^2$$

13. $9x^2 - 6x + 1$

$$(3x-1)(3x-1) \\ = (3x-1)^2$$

14. $2x^2 + x - 15$

$$(x+3)(2x-5)$$

15. $4x^2 + 12x + 5$

$$(2x+1)(2x+5)$$

16. $x^2 - 8x + 16$

$$(x-4)(x-4) \\ = (x-4)^2$$

17. $3x^2 - 7x - 10$

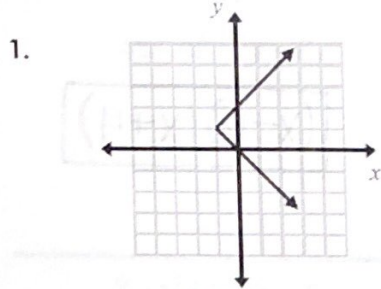
$$(x+1)(3x-10)$$

18. $3x^2 - 10x + 7$

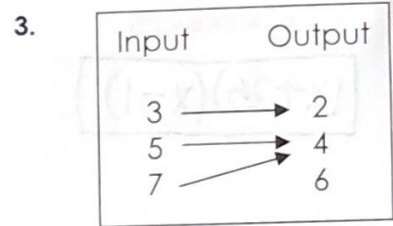
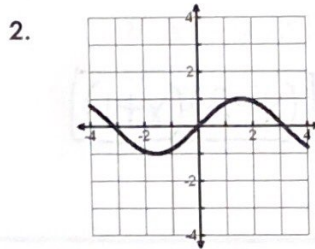
$$(x-1)(3x-7)$$

Review

Decide whether the relation is a function.



no



yes

Evaluate the function for $f(3)$, $f(0)$, and $f(-2)$. (3 answers for each problem)

4. $f(x) = x^3 - 4x$

5. $f(x) = 6x + 2$

6. $f(x) = (x+1)^2 - 2$

$6(3) + 2 = 20$ $f(3) = 20$
 $6(0) + 2 = 2$ $f(0) = 2$
 $6(-2) + 2 = -10$ $f(-2) = -10$

Find the indicated values by using the graph.

1. $h(1) = 4$

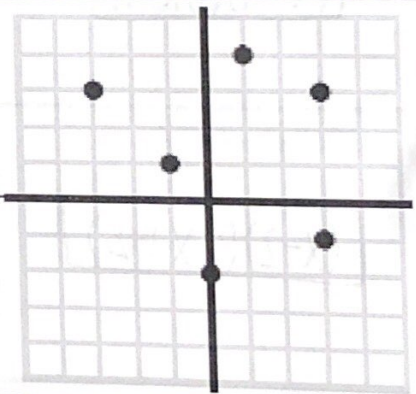
2. $h(-3) = 3$

As a coordinate: $(1, 4)$

3. $h(-1) = 1$

4. $h(0) = -2$

As a coordinate: $(-1, 1)$



7. Which value of "b" would make $x^2 + bx + 24$ not factorable?

A. 25

B. 11

C. 6

D. 14

$\frac{24}{1} \quad 24 = 24$
 $\frac{24}{2} \quad 12 = 12$
 $\frac{24}{3} \quad 8 = 8$
 $\frac{24}{4} \quad 6 = 6$

Select three of the ordered pairs below that could be added to the set so that f remains a function.

x	f(x)
-2	5
1	4
2	-3
4	0

~~A.~~ (-2, -2)

~~B.~~ (4, 0)

C. (0, -3)

D. (-1, 6)

~~E.~~ (2, 3)

F. (-5, 5)

x cannot repeat