

NAME:

Key

DATE:

A2.Q2.BERMELLEMBO: NEXT LEVEL FACTORING

DAY N2

(GRAPH TO ZEROS TO FACTORS)

Solve by Factoring:

NOTES

$$x^2 + x - 12 = 0$$

$$(x+4)(x-3) = 0$$

Factorization

Factors

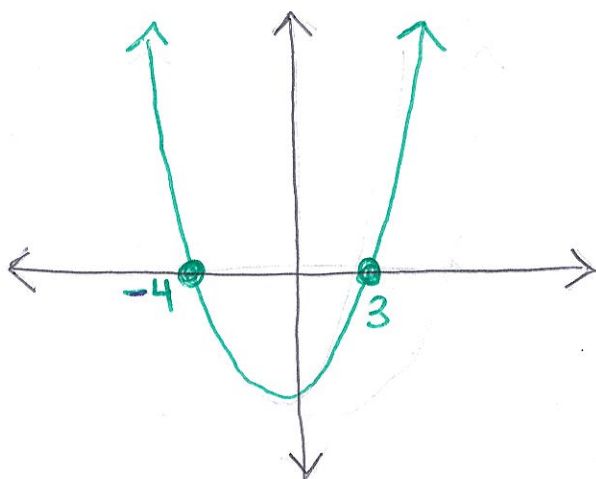
factor
solve

$$\begin{array}{r|l} x+4=0 & \\ -4 & -4 \\ \hline \end{array}$$

$$\begin{array}{r|l} x-3=0 & \\ +3 & +3 \\ \hline \end{array}$$

$$x = -4 \text{ OR } x = 3$$

Zeros



• Zeros $x = -4$ or $x = 3$

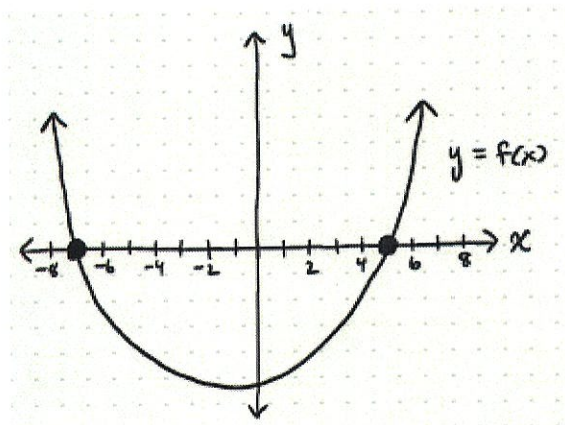
• Factors $(x+4)$, $(x-3)$

• Factorization $(x+4)(x-3)$

$y = f(x)$ is a quadratic function whose graph is shown. Write the factorization of $f(x)$.

Assume the leading coefficient is 1.

1.

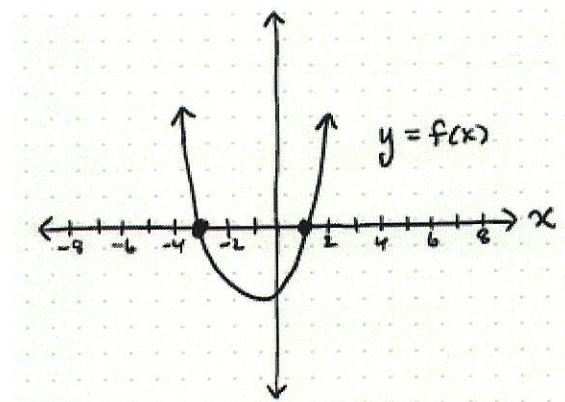


Zeros: $x = -7$ OR $x = 5$

Factors: $(x+7)$, $(x-5)$

Factorization: $(x+7)(x-5)$

2.

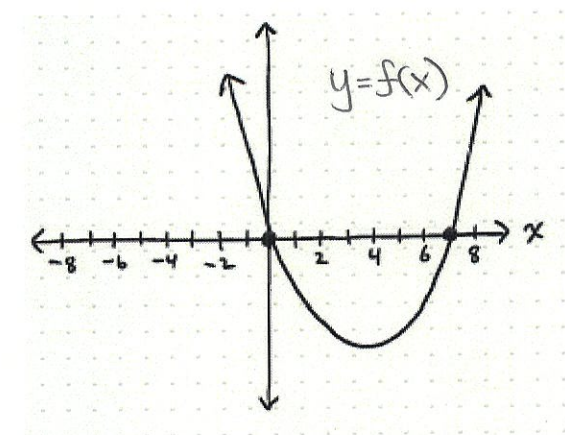


Zeros: $x = -3$ OR $x = 1$

Factors: $(x+3)$, $(x-1)$

Factorization: $(x+3)(x-1)$

3.



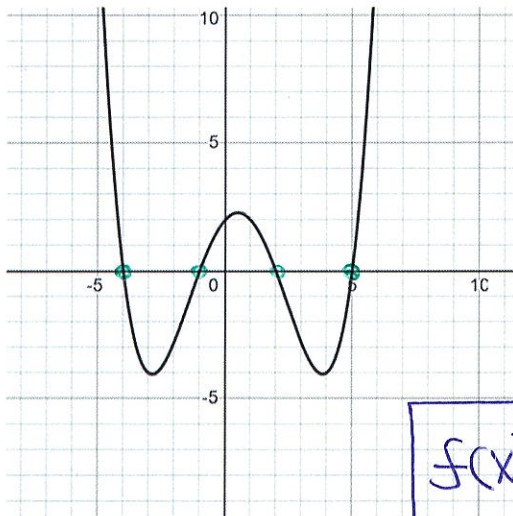
Zeros: $x = 0$ OR $x = 7$

Factors: $(x+0)$, $(x-7)$

Factorization: $(x)(x-7)$

$y = f(x)$ is a polynomial function whose graph is shown. Write the factorization of $f(x)$.

Assume the leading coefficient is 0.05.



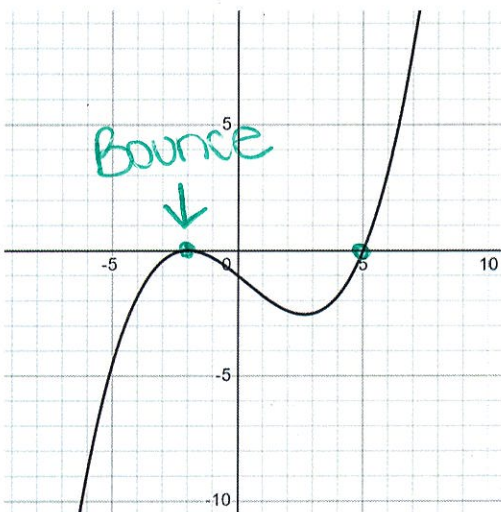
Zeros: $x = -4, x = -1, x = 2, x = 5$

Factors: $(x+4), (x+1), (x-2), (x-5)$

Factorization:

$$f(x) = 0.05(x+4)(x+1)(x-2)(x-5)$$

4.



Zeros: $x = -2, x = -2, x = 5$

Factors: $(x+2), (x+2), (x-5)$

Factorization:

$$f(x) = 0.05(x+2)(x+2)(x-5)$$

5.