

Polynomial factors and graphs

$$P(x) = 2x^3 - 18x$$

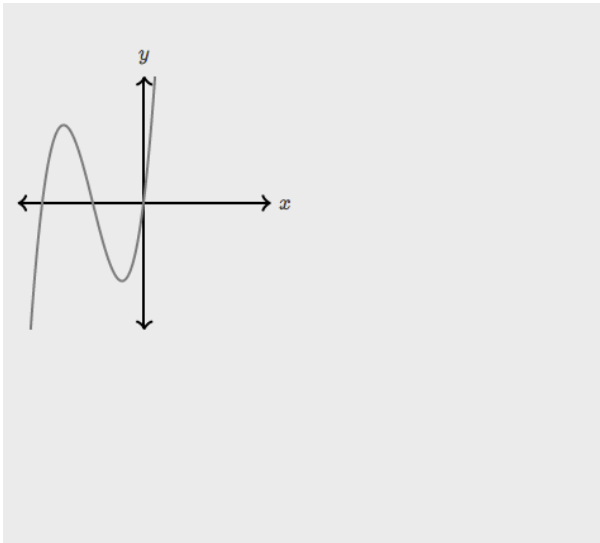
Given the polynomial function P defined above, what are its zeros?

A $\{-9, -6, 2, 3\}$

B $\{-9, 0, 2\}$

C $\{-3, 3\}$

D $\{-3, 0, 3\}$



Which of the following functions could represent the graph at left in the xy -plane, where $y = P(x)$?

A $P(x) = x^2 + 6x + 8$

B $P(x) = x^3 + 6x^2 + 8x$

C $P(x) = x^2 - 6x + 8$

D $P(x) = x^3 - 6x^2 + 8x$

A polynomial has zeros at -9 , 2 , and 0 . Which of the following could be the polynomial?

A $x^2 - 7x - 18$

B $x^3 + 7x^2 - 18x$

C $x^3 + 8x^2 - 11x - 18$

D $x^3 + 6x^2 - 25x + 18$

Polynomial factors and graphs

$$(x - 7)(x + 5)(2x - 3) = 0$$

Given the polynomial above, what are its zeros?

A $\{-7, 5, -3\}$

B $\{7, -5, 3\}$

C $\left\{-7, 5, -\frac{3}{2}\right\}$

D $\left\{7, -5, \frac{3}{2}\right\}$

$$2(x + 55)(x - 17)$$

Given the polynomial above, what are its zeros?

A $x = -55$ and $x = 17$

B $x = -55, x = -2,$ and $x = 17$

C $x = -17$ and $x = 55$

D $x = -17, x = 2,$ and $x = 55$
