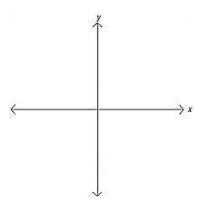
1. Sketch the graph of the polynomial  $y = -x^2(x-4)^3(x+3)$ .



2. Divide  $x^3 - 12x^2 + 41x - 42$  by x - 2 using synthetic division.

3. Divide  $x^3 - 12x^2 + 41x - 42$  by x - 2 using polynomial division.

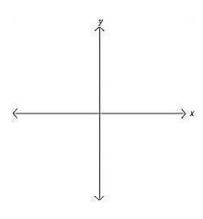
4. Use division to find f(6) if  $f(x) = 4x^3 - 9x + 4$ .

5. #4 is an application of which theorem:

Remainder Theorem

Factor Theorem

1. Sketch the graph of the polynomial  $y = -x^3(x+4)^2(x-3)$ .



2. Divide  $x^3 - 12x^2 + 41x - 42$  by x - 3 using synthetic division.

3. Divide  $x^3 - 12x^2 + 41x - 42$  by x - 3 using polynomial division.

4. Use division to find f(-4) if  $f(x) = 4x^3 - 9x + 4$ .

5. #4 is an application of which theorem: