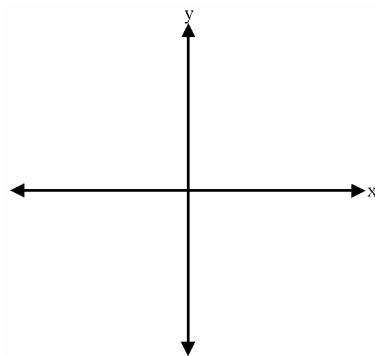


2. a. List the possible rational roots of $y = 7x^3 - 3x^2 - 112x + 48$.

b. Test the possible roots using synthetic division. For each possible root that is a zero of the function, write the corresponding factor.

c. Write the polynomial as a product of its factors. The final factor may have to be solved to find the remaining zeros.

d. Sketch a graph of the polynomial.

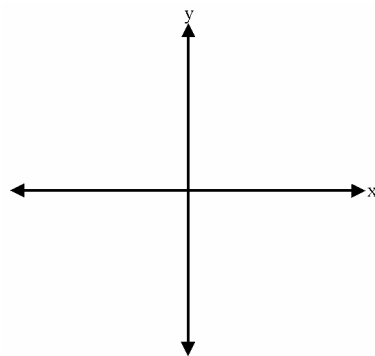


3. a. List the possible rational roots of $y = x^4 - 6x^3 - 12x^2 - 24x - 64$.

b. Test the possible roots using synthetic division. For each possible root that is a zero of the function, write the corresponding factor.

c. Write the polynomial as a product of its factors. The final factor may have to be solved to find the remaining zeros.

d. Sketch a graph of the polynomial.



4. a. List the possible rational roots of $y = -3x^3 - 3x^2 - 48x - 48$.

b. Test the possible roots using synthetic division. For each possible root that is a zero of the function, write the corresponding factor.

c. Write the polynomial as a product of its factors. The final factor may have to be solved to find the remaining zeros.

d. Sketch a graph of the polynomial.

