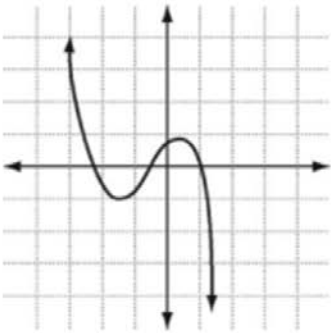


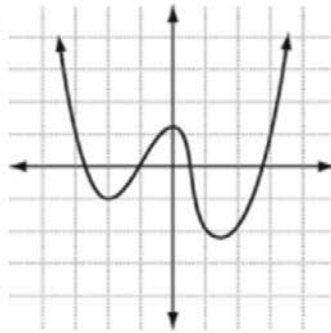
Unit 3 Module 5.4 Part 1

Identify whether the function graphed has an odd or even degree and a positive or negative leading coefficient.

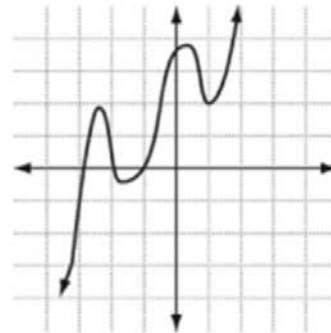
1.



2.

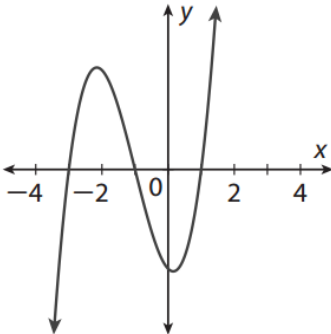


3.

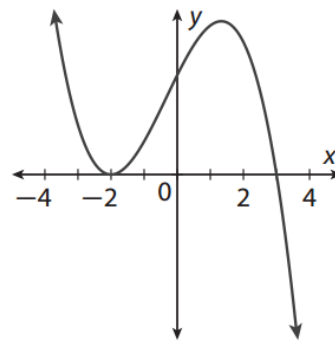


Write a cubic function in intercept form for the given graph, whose x -intercepts are integers. Assume that the constant factor a is either 1 or -1 .

14.

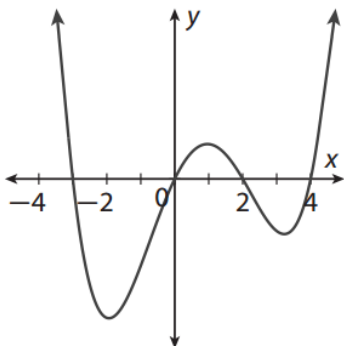


15.

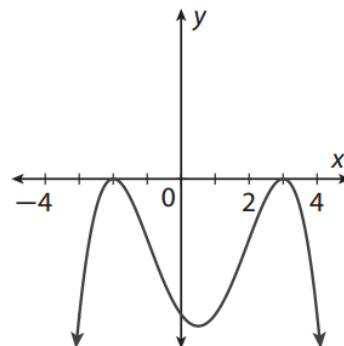


Write a quartic function in intercept form for the given graph, whose x -intercepts are integers. Assume that the constant factor a is either 1 or -1 .

16.



17.



18. Multiple Response Select all statements that apply to the graph of $f(x) = (x - 1)^2(x + 2)$.

- A. The x -intercepts are $x = 1$ and $x = -2$.
- B. The x -intercepts are $x = -1$ and $x = 2$.
- C. The graph crosses the x -axis at $x = 1$ and is tangent to the x -axis at $x = -2$.
- D. The graph crosses the x -axis at $x = -1$ and is tangent to the x -axis at $x = 2$.
- E. The graph is tangent to the x -axis at $x = 1$ and crosses the x -axis at $x = -2$.
- F. The graph is tangent to the x -axis at $x = -1$ and crosses the x -axis at $x = 2$.

19. Explain the Error A student was asked to sketch the graph of the function $f(x) = x^2(x - 3)$. Describe what the student did wrong. Then sketch the correct graph.

