Drafting and Polynomials Exam
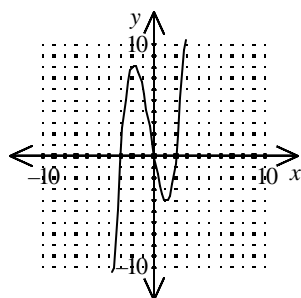
Name_____

A graphing calculator is NOT ALLOWED on this portion of the exam.
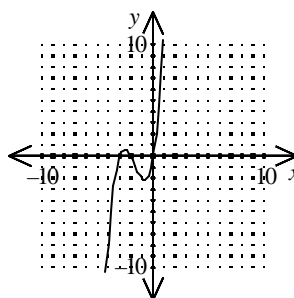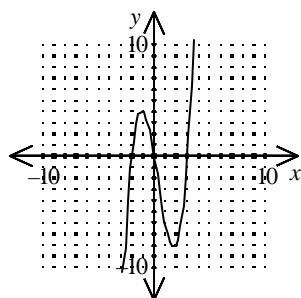
1. Graph.
$f(x) = x[x + 2][x - 3]$

[A]

[B]

[C]

[D] None of these

[1] _____

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2. What are the x-intercepts of the parabola with equation $y = 2x^2 + 8x + 6$? What are the coordinates of the vertex?

[A] The x-intercepts are –1 and –3.
     The vertex is (2, 2).

[B] The x-intercepts are –1 and $\dfrac{1}{3}$.
     The vertex is (4, –4).

[C] The x-intercepts are –1 and –3.
     The vertex is (–2, –2).

[D] The x-intercepts are –1 and $-\dfrac{1}{3}$.
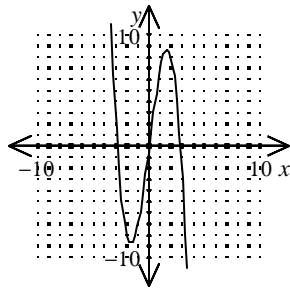   The vertex is (–4, 4).

[2] _____

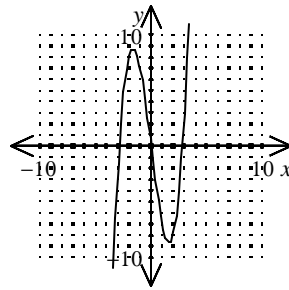Drafting and Polynomials Exam

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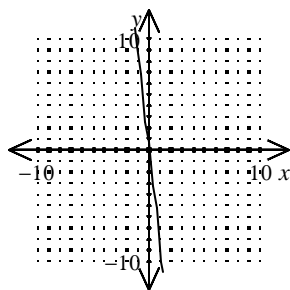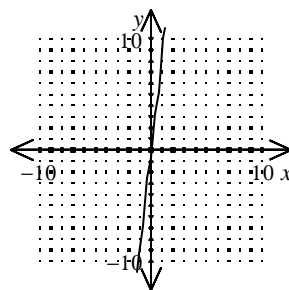3. Determine which of the graphs shown is the graph of $y = x^3 - 8x$.
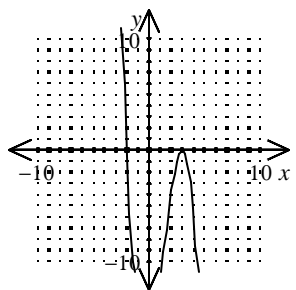
[A]

[B]

[C]
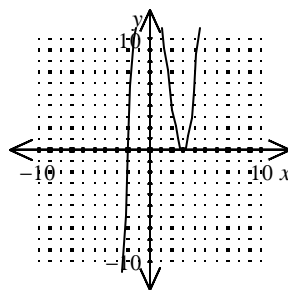
[D]

[3] _____

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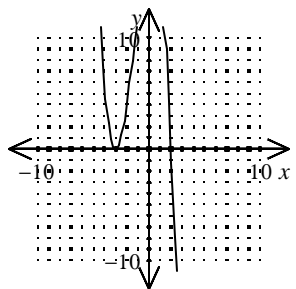4. Match the function with its graph. $y = -\left[x - 2\right]\left[x + 3\right]^2$

[A]

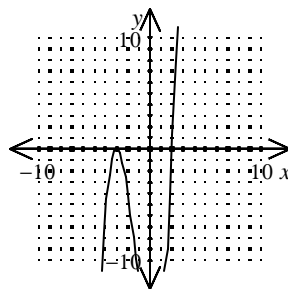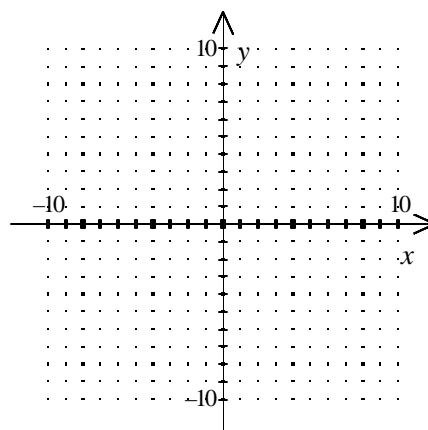[B]

[C]

[D]

[4] _____

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5. Graph: $y = x^5$

[5]

6. Sketch the graph of the function. $f(x) = (x+1)^4$

[6]