



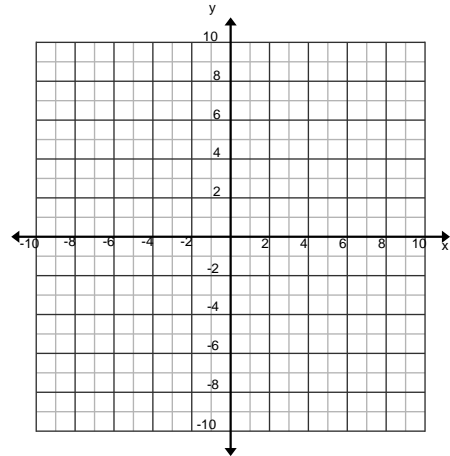
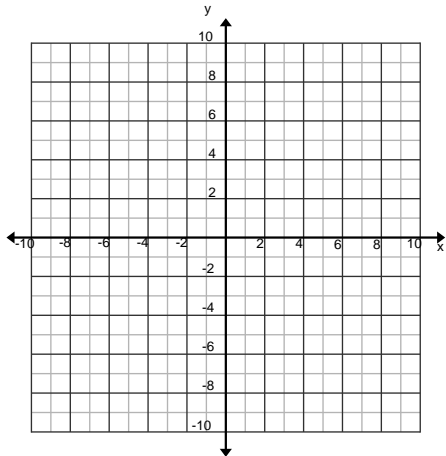
GRAPHING POLYNOMIALS WORKSHEET

Sketch the graph of the following polynomials by hand using the following steps:

- Factor the polynomial to find the zeros, if not in factored form. Use synthetic substitution/division.
- Use a table of values using synthetic substitution (include the y-intercept).
- Determine the end behavior from degree and leading coefficient and mark this on the graph lightly.
- Graph the function and check your answer with technology.

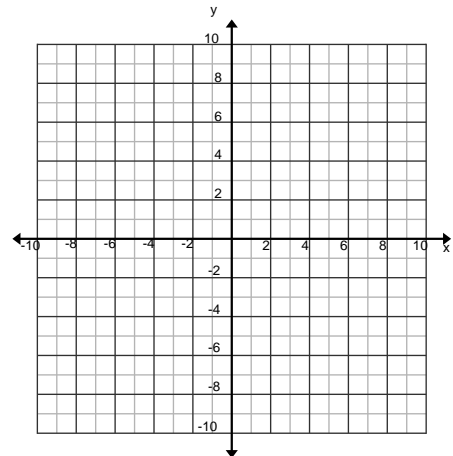
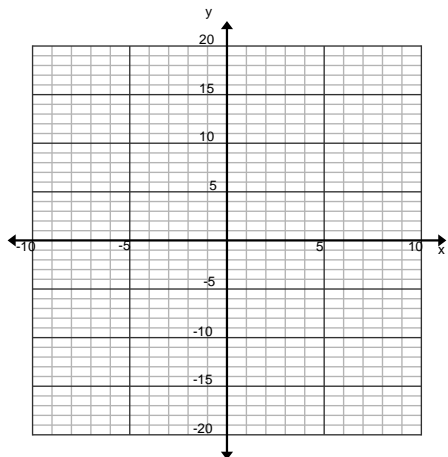
1) $f(x) = x^3 - x$

2) $f(x) = 2(x - 4)^4$

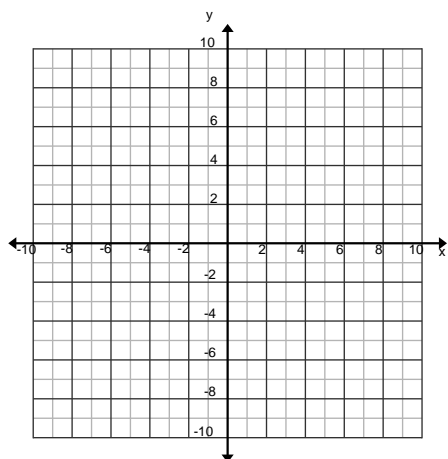


3) $f(x) = x^3 - 2x^2 - 9x + 18$

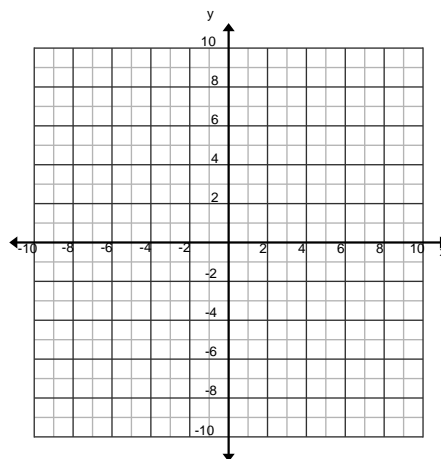
4) $f(x) = x^3 + x^2 - 10x + 8 ; f(1) = 0$



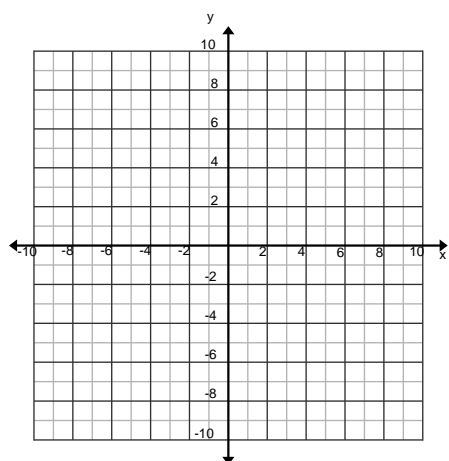
5) $f(x) = -3(x-2)^2(x+1)^3$



6) $f(x) = -x^3 + 4x^2 + x - 4$



7) $f(x) = x^3 - x^2 - 6x$



8) $f(x) = (x+2)^3(x-1)^2$

