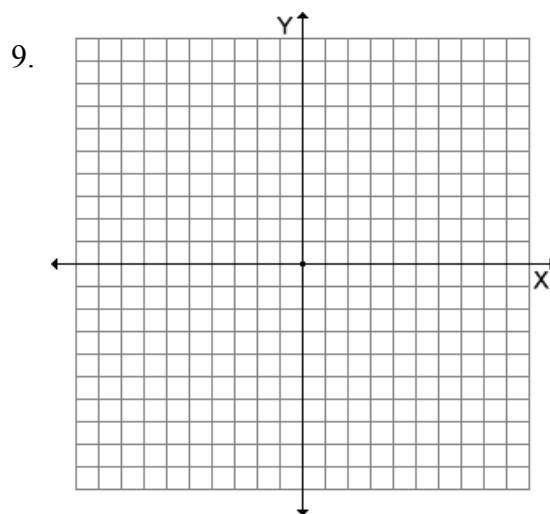


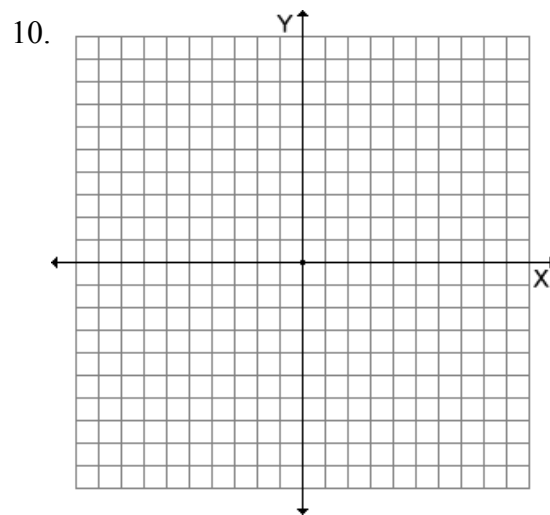
Algebra 2A

9. Graph the function $h(x) = x^4 + 7x + 1$ using a table of values and determine the x -value of each **real zero**. Approximate to the nearest thousandth.



real zeros: _____

10. Graph the function $r(x) = 4x^3 + x^2 - 11x + 3$ using a table of values and determine the x -value of each **real zero**. Approximate to the nearest thousandth.



real zeros: _____

5.3

11. Write the polynomial $5x^{10} - 6x^5 - 3$ in quadratic form, if possible.

Algebra 2A

For Questions 12 and 13, solve each equation.

12. $m^4 + 3m^3 = 40m^2$

13. $x^{\frac{2}{3}} - 9x^{\frac{1}{3}} + 20 = 0$

5.4 & 5.5

For Questions 14-17, find ALL of the zeros of the function.

14. $f(x) = x^3 - 7x^2 + 16x - 10$

15. $g(x) = 10x^3 + 7x^2 - 82x + 56$

16. $k(x) = 4x^4 + 36x^3 + 57x^2 + 225x + 200$

17. $h(x) = 2x^3 + 2x^2 - 34x + 30$

Algebra 2A

For Questions 18 and 19, write a polynomial function of least degree with integral coefficients that has the given zeros.

18. $-3, 1, 2$

19. $-6, 5i$

5.6

For Questions 20 and 21, find $(f + g)(x)$, $(f - g)(x)$, $(f \cdot g)(x)$, and $\left(\frac{f}{g}\right)(x)$.

20. $f(x) = x^2 - 5$
 $g(x) = x^2 + 5$

21. $f(x) = x + 2$
 $g(x) = x^2 + 4x + 4$

For Questions 22 and 23, if $f(x) = x^2 + 1$ and $h(x) = x - 1$, find each value.

22. $h[f(3)]$

23. $f[h(-3)]$

24. Suppose $h(x) = x^2 + 2$ and $g(x) = x - 3$. Find $g[h(x)]$.