

For the following polynomial functions, find all roots.

You may use the graph of your calculator, find the p/q's and use the table, synthetic division, quadratic formula... In the end, you should have all roots and work or an explanation as to how you got them..

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

1. \_\_\_\_\_

2.  $f(x) = x^3 + x^2 + 2x + 24$

2. \_\_\_\_\_

3.  $f(x) = x^3 + x^2 - 2x - 2$

3. \_\_\_\_\_

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

4. \_\_\_\_\_

5.  $f(x) = 3x^3 + 2x^2 + 3x + 2$

5. \_\_\_\_\_

6.  $f(x) = x^3 + 7x^2 + 4x + 28$

6. \_\_\_\_\_

7.  $f(x) = x^4 + 5x^3 - 27x^2 + 31x - 10$

7. \_\_\_\_\_

8.  $f(x) = x^4 - 5x^2 - 36$

8. \_\_\_\_\_

9.  $f(x) = x^4 - 3x^3 - 20x^2 - 24x - 8$

9. \_\_\_\_\_

10.  $f(x) = x^4 + 6x^3 + 14x^2 + 54x + 45$

10. \_\_\_\_\_