

3.3 WS

Use the Rational Zero Theorem to list possible rational zeros for each polynomial function.

1. $P(x) = x^3 + 3x^2 - 6x - 8$

2. $P(x) = 2x^3 + x^2 - 25x + 12$

Find the smallest positive integer that is the upper bound and the largest negative integer that is a lower bound of the real zeros of each polynomial.

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

4. $P(x) = 2x^3 + x^2 - 25x + 10$

Use Descartes' Rule of Signs to state the number of possible positive and negative real zeros of each polynomial function.

5. $P(x) = x^3 + 3x^2 - 6x - 8$

6. $P(x) = 2x^3 + x^2 - 25x + 12$

Find the zeros of each polynomial function. If a zero is a multiple zero, state its multiplicity.

7. $P(x) = 2x^3 + x^2 - 25x + 12$

8. $P(x) = 2x^4 - 19x^3 + 51x^2 - 31x + 5$