

8.1

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20) A company offers 29,000 the first year and guarantees a 3% increase per year for each year after that. What is the total salary if you work 9 years?

Factor over the set of complex numbers

21) $n^2 + 2n + 11 = 0$

22) $4v^2 - 3v + 4 = 0$

Divide.

$$23) \frac{x^3 - 2x^2 - 3x + 5}{x^2 - 1}$$

$$24) (n^3 - 4n^2 - 11n - 73) \div (n - 7)$$

Simplify each expression.

$$25) \frac{3}{a+4} - \frac{4}{a-3}$$

$$26) \frac{2}{3n-6} + \frac{4n}{2n-5}$$

27) Given $f(x) = \frac{x+3}{x^2-3x-18}$ identify any asymptotes and points of discontinuity.