

2-4 Factoring Cubic Polynomials

- _____ 1. Factor $8x^3 - 27$
- _____ 2. Factor $8n^3 + 729y^3$
- _____ 3. Factor $n^3 + 27y^3$
- _____ 4. Factor $1000x^3 - 27$
- _____ 5. Factor $x^3 - 125y^3$

2-5 A Dividing Polynomials

- _____ 1. $a - 7 \overline{) a^2 - 2a - 35}$
- _____ 2. $n + 9 \overline{) n^2 + 12n + 36}$
- _____ 3. $n + 4 \overline{) n^2 + 5n - 2}$
- _____ 4. $n - 2 \overline{) n^2 + 3n + 1}$
- _____ 5. $x + 3 \overline{) x^3 + 27}$

2-5 B Dividing Polynomials

Divide the following by factoring the numerator and denominator and then simplifying.

- _____ 1. $\frac{n^2 + 7n + 10}{n + 5}$
- _____ 2. $\frac{n^2 - 8n - 20}{n^2 - 13n + 30}$
- _____ 3. $\frac{n^2 + 4n + 3}{n^2 + 7n + 12}$
- _____ 4. $\frac{n^2 - 16}{n^2 + n - 20}$
- _____ 5. $\frac{n^2 + 9n - 10}{n^2 - 3n - 4}$