

Dividing Polynomials

Name _____

Use long division to divide the polynomials below.

1. $2x-1 \overline{)6x-3}$

2. $x+2 \overline{)x^2-2x-8}$

3. $4n+3 \overline{)8n^2+6n}$

4. $n+9 \overline{)n^2+12n+36}$

5. $a-7 \overline{)a^2-2a-35}$

6. $x+3 \overline{)x^3+27}$

7. $a-2 \overline{)a^3+8a-21}$

8. $x-2 \overline{)x^3-8}$

Divide the following by factoring the numerator and denominator and then simplifying.
Put your final answer in the blank to the left of the question.

_____ 9. $\frac{n^2 + 7n + 10}{n + 5}$

_____ 10. $\frac{n^2 + 7n + 12}{n + 4}$

_____ 11. $\frac{n^2 + 10n + 21}{n + 7}$

_____ 12. $\frac{n^2 - 6n + 8}{n - 2}$

_____ 13. $\frac{n^2 + 7n + 10}{n^2 + 12n + 20}$

_____ 14. $\frac{n^2 - 8n - 20}{n^2 - 13n + 30}$

_____ 15. $\frac{n^3 + 27}{n^2 + 6n + 9}$