

2-5 Dividing Polynomials

Name: _____

Time Start: _____ Finish: _____ Total Time = _____

Use long division to divide the polynomials below.

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

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

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

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

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

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

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

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

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