

Act. #29

Simplifying Rational Expressions

* Simplify the following.

$$1) \frac{16x^2 - 49}{12x + 21}$$

$$2) \frac{2x^3 + 8x^2 + 5x + 20}{2x^3 - 32x}$$

$$3) \frac{x^3 - 27}{5x^2 - 15x}$$

$$4) \frac{5x^2 - 20}{3x^3 + 24}$$

$$5) \frac{2x^2 - 13x + 21}{2x^3 - 7x^2 + 10x - 35}$$

$$6) \frac{2x^3 - 6x^2 + 2x - 6}{4x^3 - 108}$$

$$7) \frac{27x^4 + 64x}{6x^2 - x - 12}$$

$$8) \frac{4x^2 - 100}{8x^3 + 8x^2 - 160x}$$

$$9) \frac{5x^3 + 40}{5x^2 - 10x + 20}$$

$$10) \frac{9x^2 - 25}{6x^2 - 26x - 60}$$

$$11) \frac{x^3 - xy^2}{2x^3 + 2x^2y}$$

$$12) \frac{24x^4y - 54x^3y}{6x^2y + 9xy}$$

$$13) \frac{10x^3 + 35x^2 - 6x - 21}{8x^2 - 98}$$

$$14) \frac{8x^3 + 64}{4x^2 - 16}$$

$$15) \frac{8x^2 - 41x + 5}{x^3 - 125}$$