

Jan. 20 - bell ringer

Factor

$$1) 3t^2 - 14t - 24$$

$$2) 2r^2 + 5r - 3$$

Learning target:

You can

1. Divide a polynomial by a monomial
2. Divide a polynomial by a polynomial (algebraic long division)

Part 1: dividing a polynomial by a monomial

$$1) (4x^2 - 18x) \div (2x)$$

$$2) (2y^2 - 3y - 9) \div (3y)$$

## Part 2: dividing a polynomial by a polynomial

Long division review:

$$3 \overline{) 731}$$

$$D) (2r^2 + 5r - 3) \div (r + 3)$$

$$2) (x^2 + 7x - 15) \div (x - 2)$$

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$$(2h^3 + 8h^2 - 3h - 12) \div (h + 4)$$

$$4) \quad (t^3 - 2t - 4) \div (t + 4)$$



5)

$$(8c^3 + 6c - 5) \div (4c - 2)$$

6)

$$(3t^2 - 14t - 24) \div (3t + 4)$$

Alternative method: Synthetic division

$$1) (2r^2 + 5r - 3) \div (r + 3)$$

2)

$$(x^2 + 7x - 15) \div (x - 2)$$

3)

$$(t^3 - 2t - 4) \div (t + 4)$$

4)

$$(3t^2 - 14t - 24) \div (3t + 4)$$

# Assignment

pp. 708-709

(2-42E, omit 22, 28, 38)