

IN-CLASS EXERCISE
ISOLATING - VARIABLES
201-943-DW
SOLUTIONS

$$(1) \quad 3xy - 2 = 0 \quad (y)$$

$$3xy = 2$$

$$y = \frac{2}{3x}$$

$$(2) \quad a^2b + \frac{1}{a} - \frac{3}{5} = 1 \quad (b)$$

$$5a^3b + 5 - 3a = 5a$$

$$5a^3b = 8a - 5$$

$$b = \frac{8a - 5}{5a^3}$$

$$(3) \quad \frac{xy}{2} = \frac{3x}{4} \quad (x) \quad (4) \quad 2ab + \frac{1}{c} = 2 \quad (c)$$

$$2xy = 3x$$

$$2xy - 3x = 0$$

$$x(2y - 3) = 0$$

$$x = 0$$

$$2abc + 1 = 2c$$

$$2abc - 2c = -1$$

$$c(2ab - 2) = -1$$

$$c = \frac{-1}{2ab - 2}$$

$$(5) \quad \frac{x}{y} - 2 + \frac{1}{6} = \frac{2x}{5}$$

(Y)

$$30x - 60y + 5y = 12xy$$

(multiply both sides
by 30y)

$$30x - 55y = 12xy$$

$$30x = 12xy + 55y$$

$$30x = y(12x + 55)$$

$$y = \frac{30x}{12x + 55}$$

$$(6) \quad 36x^2 + 2 - \frac{1}{3a} = 4x$$

(a)

$$108ax^2 + 6a - 1 = 12ax$$

$$108ax^2 + 6a - 12ax = 1$$

$$a(108x^2 + 6 - 12x) = 1$$

$$a = \frac{1}{108x^2 + 6 - 12x}$$