

Rules for Standard Form

- ① Must be in the form $Ax + By + C = 0$ where A and B are not both zero. *one can be*
- ② A, B, C must be integers. *{...-6, -5, ..., 0, 1, 2, ..., 9...}*
- ③ A, B, C must not have any factors common to all.
- ④ Standard form must not begin with a negative sign.

$$\frac{-4x+3y+9}{-1-1-1} = \frac{0}{-1}$$

$$4x - 3y - 9 = 0$$

#	Standard Form	A	B	C
a	$3x + 8y = 0$	3	8	0
b	$5x - 8y + 2 = 0$	5	-8	2
c	$x - y - 7 = 0$	1	-1	-7
d	$3y - 5 = 0$	0	3	-5

Determine which of the following examples is in standard form. Beside each of the examples, place a check mark (✓) if the equation is in standard form. If it is not, then give the number(s) of the above rule(s) which has (have) been broken.

- | | | | | | |
|----------------------|-----|----------------------------------|---|----------------------------|-----|
| a) $4x + 2y - 3 = 0$ | ① | b) $4x + 5y + 6 = 0$ | ✓ | c) $9x - 6y + 4 = 0$ | ✓ |
| d) $3y + 7x - 2 = 0$ | ① | e) $2.3x + 0.7y + 1 = 0$ | ② | f) $5x - 5y - 5 = 0$ | ③ |
| g) $y = -7$ | ① | h) $-4x + 3y + 9 = 0$ | ④ | i) $\frac{2}{3}x + 4y = 0$ | ② |
| j) $-3y = 8$ | ① ④ | k) $3x = 11$ | ① | l) $8 = 2y$ | ① ③ |
| m) $x - y = 0$ | ✓ | n) $\frac{12x - 16y + 8}{4} = 0$ | ③ | p) $x = -4$ | ① |

$y + 7 = 0$
 $-3y = 8$
 $0 = 3y + 8$

$3x + 6y - 5 = 0$ ✓

$$\frac{12x - 16y + 8}{4} = 0$$

$$\rightarrow 3x - 4y + 2 = 0$$

$x + 4 = 0$