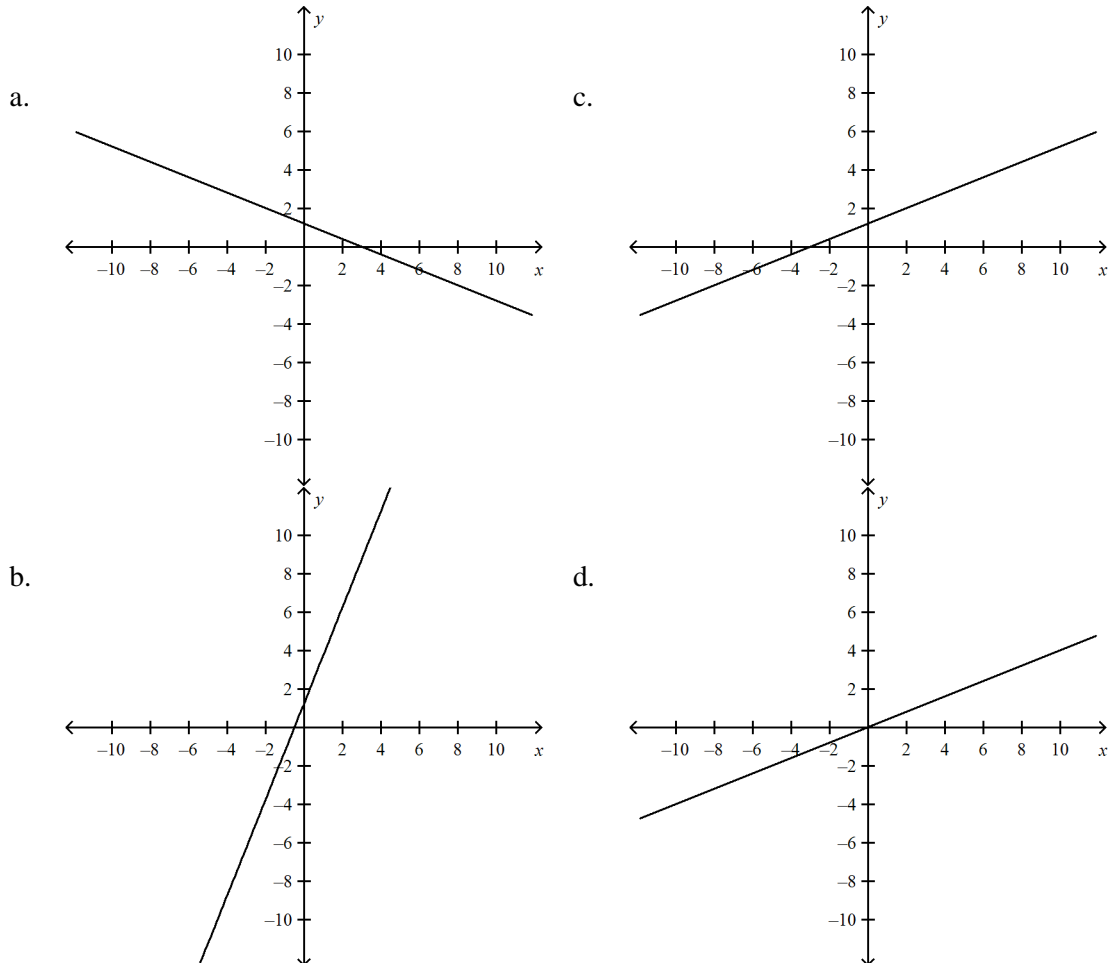


1AL2.4: Graph from SI-Equation

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MULTIPLE CHOICE

1. Which of the following is the graph of the line: $y = \frac{2}{5}x + \frac{6}{5}$?

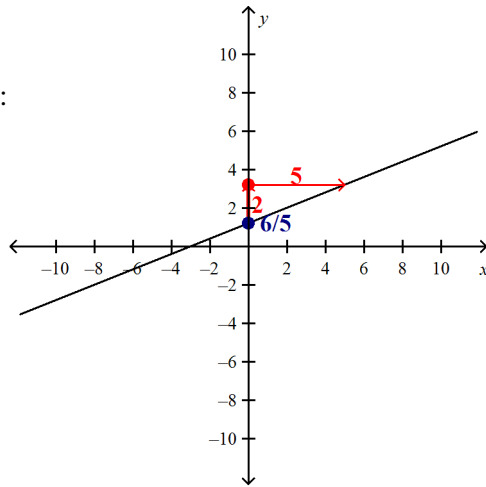


ANS: C

The slope $m = \frac{2}{5}$.

The y-intercept is: $+\frac{6}{5}$

Graph:



	Feedback
A	Wrong slope (negative), correct y-intercept.
B	Wrong slope (inverted: run over rise), correct y-intercept.
C	Correct!
D	Correct slope; wrong y-intercept.

PTS: 1

DIF: Grade 8

REF: 1AL2.4

OBJ: Solve multi-step problems, including word problems, involving linear equations and linear inequalities in one variable and provide justification for each step.

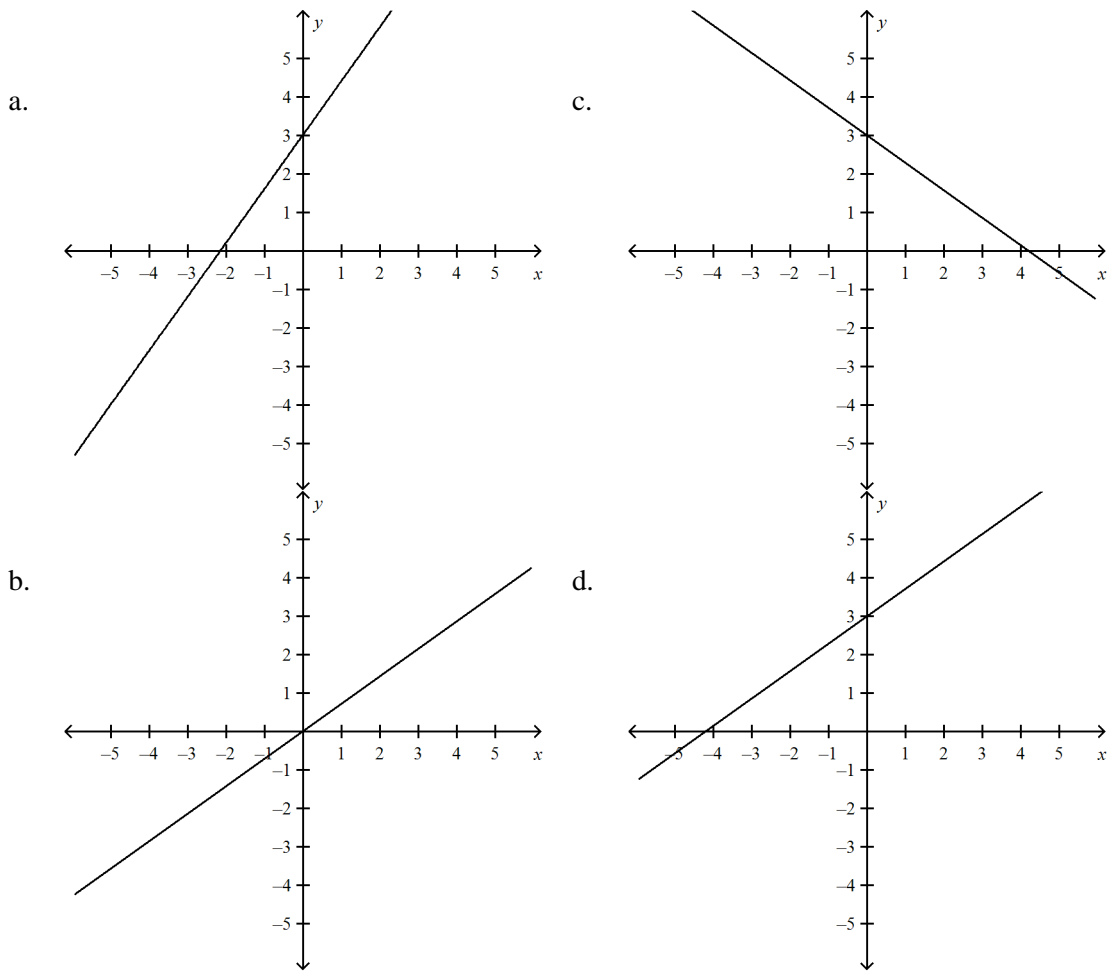
STA: CA.1ALG1.6

LOC: Students graph a linear equation and compute the x- and y- intercepts (e.g., graph $2x + 6y = 4$). They are also able to sketch the region defined by linear inequality (e.g., they sketch the region defined by $2x + 6y < 4$).

TOP: Algebra 1

KEY: graph | lines |slope-intercept form

2. Which of the following is the graph of the line: $y = 0.71x + 3$?



ANS: D

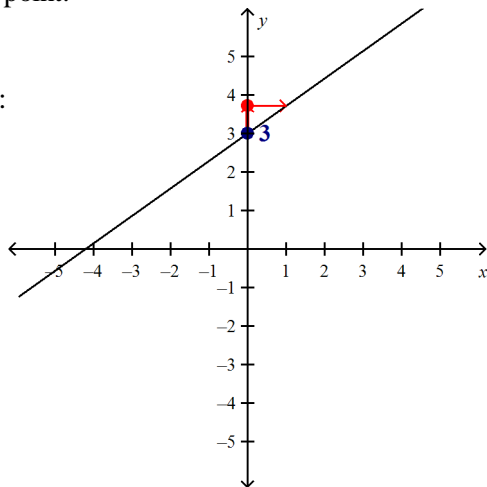
Analytic Solution:

$m = 0.71$.

The y-intercept is: +3

We draw the point +3 on the y-axis and then *from there* we go **up** 0.71 and to the **right** 1 to get our second point.

Graph:



Feedback

A	Wrong slope (inverted: run over rise), correct y-intercept.
B	Wrong slope (negative), correct y-intercept.
C	Correct slope, wrong y-intercept.
D	Correct!

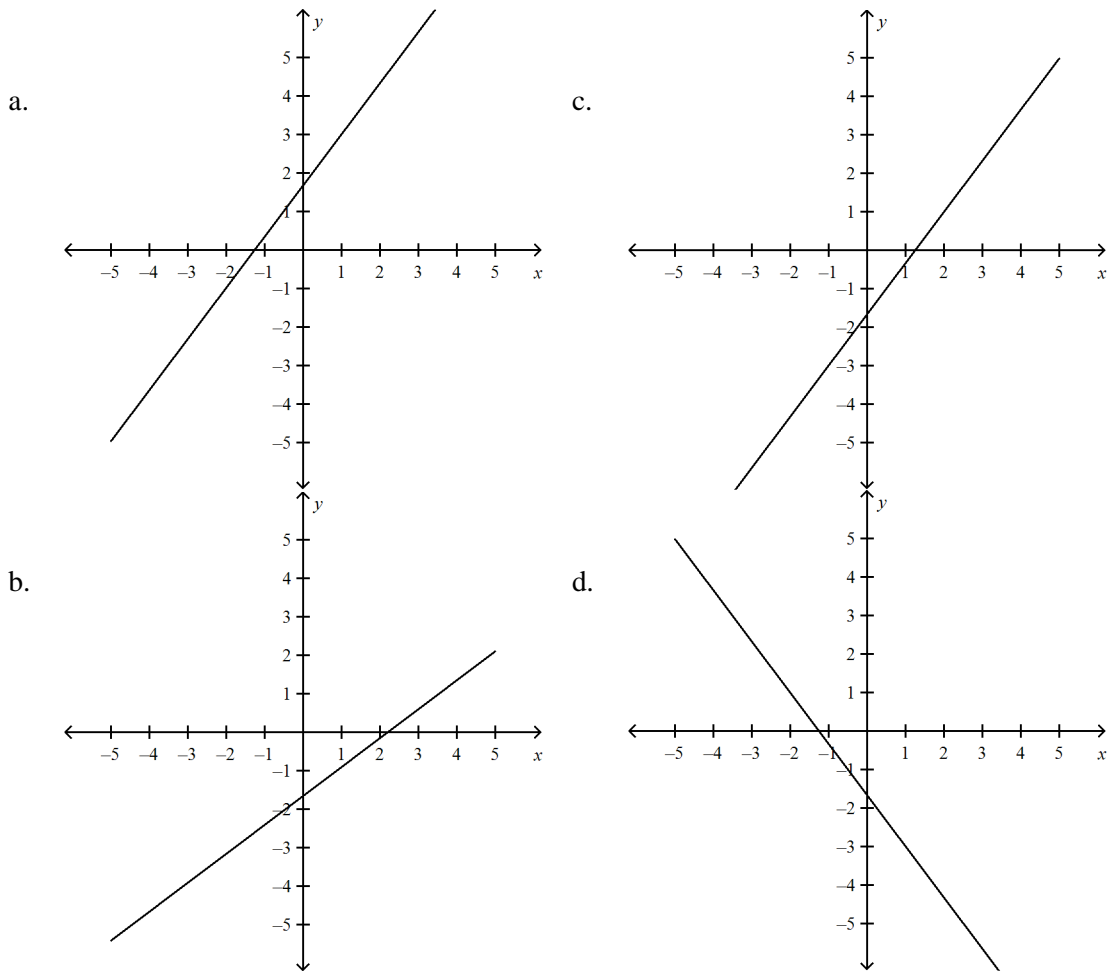
PTS: 1 DIF: Grade 8 REF: 1AL2.4

OBJ: Solve multi-step problems, including word problems, involving linear equations and linear inequalities in one variable and provide justification for each step.

STA: CA.1ALG1.6

LOC: Students graph a linear equation and compute the x- and y- intercepts (e.g., graph $2x + 6y = 4$). They are also able to sketch the region defined by linear inequality (e.g., they sketch the region defined by $2x + 6y < 4$). TOP: Algebra 1 KEY: graph | lines |slope-intercept form

3. Which of the following is the graph of the line: $4x - 3y = 5$?



ANS: C

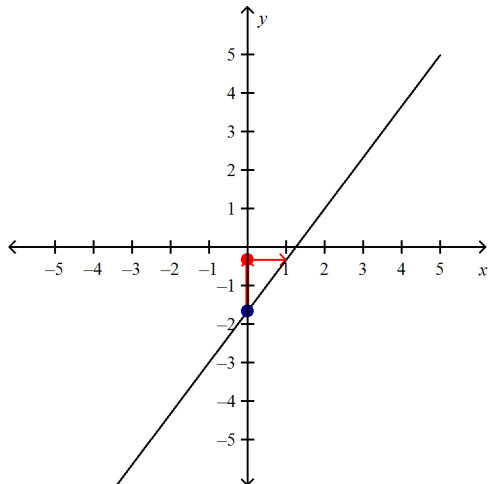
Solution: We put the equation $4x - 3y = 5$ into the form $y = mx + b$.

$$-3y = -4x + 5$$

$$y = \frac{-4}{(-3)}x + \frac{5}{(-3)}$$

$$y = 1.33x - 1.67$$

So, the slope is: $m = 1.33$ and the y-intercept is $b = -1.67$.



Note: You can also graph by finding 2-3 points on the line or the x - and y -intercepts...

	Feedback
A	Slope is right; intercept is wrong.
B	Wrong slope (inverted: run over rise), correct y -intercept.
C	Correct!
D	Wrong slope (backwards: negative), correct y -intercept.

PTS: 2 DIF: Grade 8 REF: 1AL2.4

OBJ: Solve multi-step problems, including word problems, involving linear equations and linear inequalities in one variable and provide justification for each step.

STA: CA.1ALG1.6

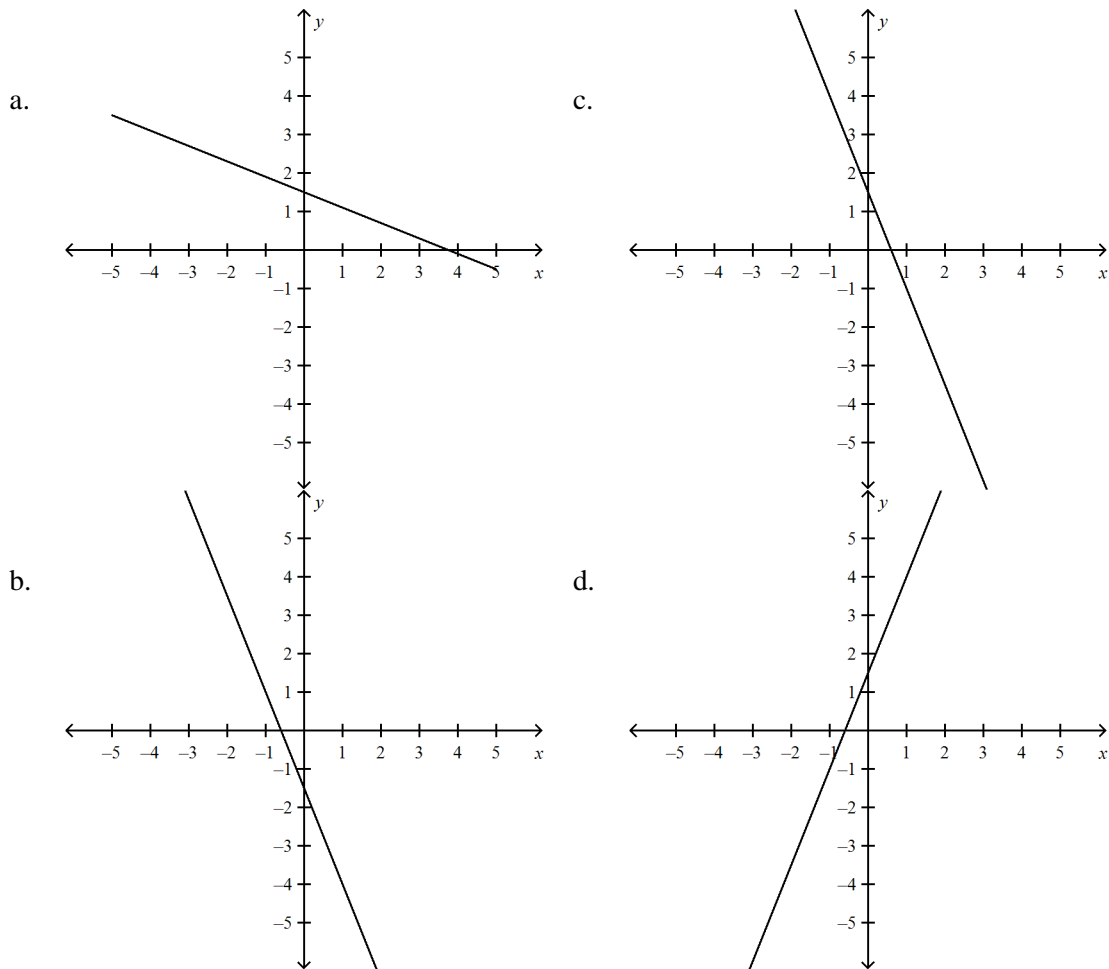
LOC: Students graph a linear equation and compute the x - and y - intercepts (e.g., graph $2x + 6y = 4$). They are also able to sketch the region defined by linear inequality (e.g., they sketch the region defined by $2x + 6y < 4$).

TOP: Algebra 1

KEY: graph | lines |slope-intercept form | standard form

MSC: $Ax+By=C$ | $A>0, B>0$

4. Which of the following is the graph of the line: $5x + 2y = 3$?



ANS: C

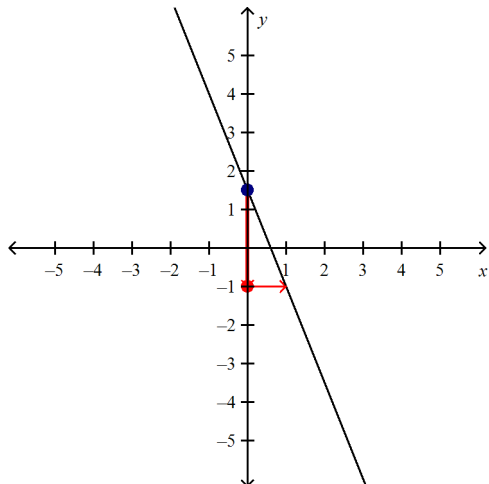
Solution: We put the equation $5x + 2y = 3$ into the form $y = mx + b$.

$$+ 2y = -5x + 3$$

$$y = \frac{-5}{2}x + \frac{3}{2}$$

$$y = -2.5x + 1.5$$

So, the slope is: $m = -2.5$ and the y-intercept is $b = 1.5$.



Note: You can also graph by finding 2-3 points on the line or the x - and y -intercepts...

	Feedback
A	Wrong slope (inverted: run over rise), correct y -intercept.
B	Slope is right; intercept is wrong.
C	Correct!
D	Wrong slope (backwards: negative), correct y -intercept.

PTS: 2

DIF: Grade 8

REF: 1AL2.4

OBJ: Solve multi-step problems, including word problems, involving linear equations and linear inequalities in one variable and provide justification for each step.

STA: CA.1ALG1.6

LOC: Students graph a linear equation and compute the x - and y - intercepts (e.g., graph $2x + 6y = 4$). They are also able to sketch the region defined by linear inequality (e.g., they sketch the region defined by $2x + 6y < 4$).

TOP: Algebra 1

KEY: graph | lines |slope-intercept form | standard form

MSC: $Ax+By=C$ | $A>0, B>0$