

Algebra 1 - Graphing Linear Equations - Test

Common Core A-REI.D.10, F-IF.C.7a, A-CED.A.2 · maths-pdf.fr/en/

Name: _____ Class: _____ Date: ____/____/____

This 45-minute test on graphing linear equations covers Common Core A-REI.D.10, F-IF.C.7a, and A-CED.A.2 and is worth 20 points. Work alone, show all steps, and use a calculator only if your teacher allows it. Partial credit is given for correct work, so write down your reasoning even when you are unsure of the final answer.

About this test

- Grade: Algebra 1
- Chapter: Graphing Linear Equations
- Standards: A-REI.D.10, F-IF.C.7a, A-CED.A.2
- Time: 45 minutes
- Total: 20 points

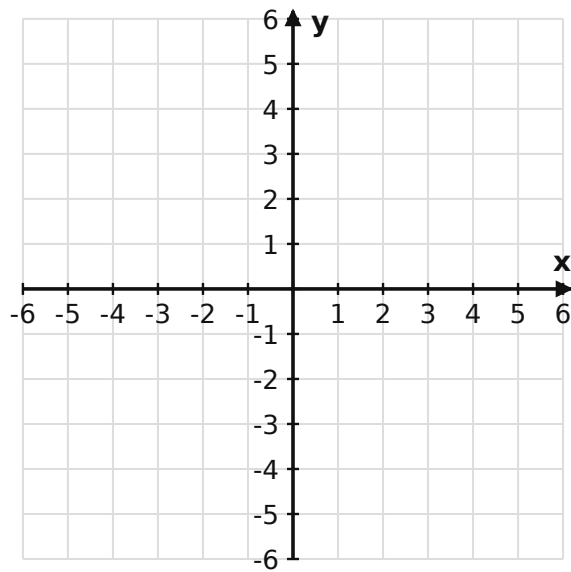
Question 1 - Slope and intercept [2 pts]

Identify the slope and y-intercept.

a. $y = -4x + 7$ (1 point)

b. $y = \frac{3}{5}x - 2$ (1 point)

Question 2 - Graph a line [2 pts]



Grid for question 2.

Graph $y = \frac{3}{4}x - 1$ on the grid.

Question 3 - Find intercepts [2 pts]

Find the x-intercept and the y-intercept of $5x - 2y = 20$.

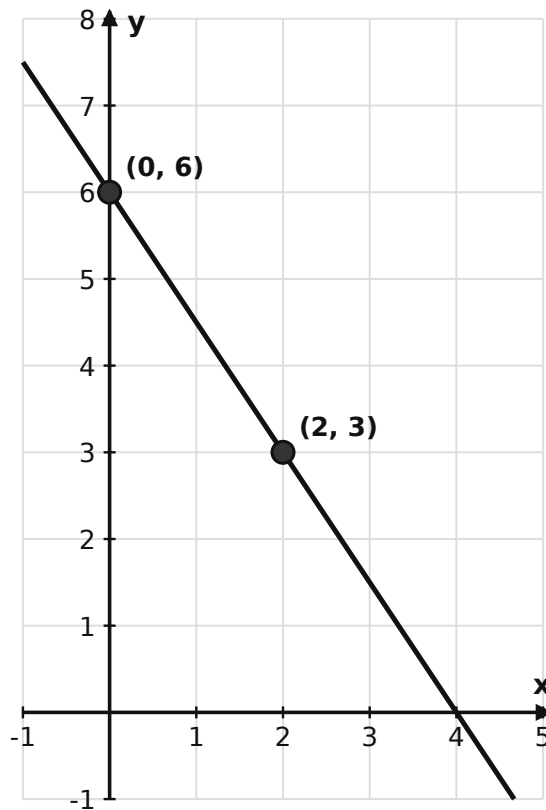
Question 4 - Rewrite an equation [2 pts]

Write $4x + 2y = 10$ in slope-intercept form.

Question 5 - Point-slope form [2 pts]

A line has slope -3 and passes through $(2, 5)$. Write its equation in point-slope form and in slope-intercept form.

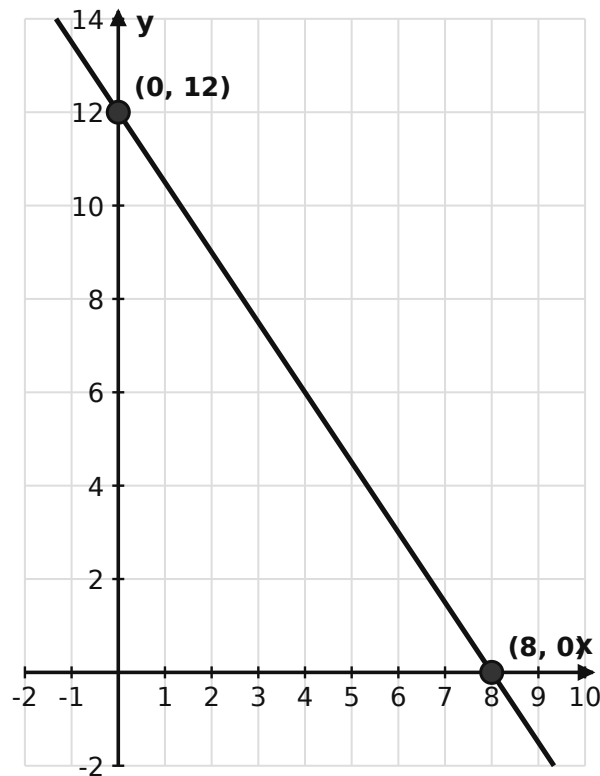
Question 6 - Equation from a graph [2 pts]



Water level of a tank.

The graph shows the water level y in inches of a tank after x hours. Write an equation for the water level.

Question 7 - Data plan [3 pts]



Aisha's data plan (x in days, y in GB).

Aisha has a data plan that starts with 12 GB. The graph shows the data left, y , after x days.

- Find the slope and write an equation. (1 point)
- Explain the meaning of the x-intercept. (1 point)
- How much data is left after 4 days? (1 point)

Question 8 - Points on a line [3 pts]

Consider the line $2x - 3y = 12$.

- Which of these points lie on the line? $(6,0)$, $(0,4)$, $(-3,-6)$, $(5,1)$. (2 points)
- Find the value of y when $x = 9$. (1 point)

Question 9 - Horizontal and vertical [2 pts]

Write the equation of the horizontal line and of the vertical line that pass through $(4, -3)$.