

## Algebra I

178. If  $x = -7$ , then  $-x =$

A  $-7$

B  $-\frac{1}{7}$

C  $\frac{1}{7}$

D  $7$

M02863

179. The perimeter,  $P$ , of a square may be found by using the formula  $\left(\frac{1}{4}\right)P = \sqrt{A}$ , where  $A$  is the area of the square. What is the perimeter of the square with an area of 36 square inches?

A 9 inches

B 12 inches

C 24 inches

D 72 inches

M00057

180. What is the reciprocal of  $\frac{ax^2}{y}$ ?

A  $-\frac{ax^2}{y}$

B  $-\frac{y}{ax^2}$

C  $\frac{ax^2}{y}$

D  $\frac{y}{ax^2}$

M13174

181. If  $x$  is an integer, what is the solution to  $|x - 3| < 1$ ?

A  $\{-3\}$

B  $\{-3, -2, -1, 0, 1\}$

C  $\{3\}$

D  $\{-1, 0, 1, 2, 3\}$

M03035

182. If  $x$  is an integer, which of the following is the solution set for  $3|x| = 15$ ?

A  $\{0, 5\}$

B  $\{-5, 5\}$

C  $\{-5, 0, 5\}$

D  $\{0, 45\}$

M00059

183. What are all the possible values of  $x$  such that  $10|x| = 2.5$ ?

A 0.25 and  $-0.25$

B 4 and  $-4$

C 4.5 and  $-4.5$

D 25 and  $-25$

M12992

## Algebra I

184. Which of the following is equivalent to  $4(x + 5) - 3(x + 2) = 14$ ?

- A  $4x + 20 - 3x - 6 = 14$
- B  $4x + 5 - 3x + 6 = 14$
- C  $4x + 5 - 3x + 2 = 14$
- D  $4x + 20 - 3x - 2 = 14$

M02936

187. Which of the following is equivalent to  $1 - 2x > 3(x - 2)$ ?

- A  $1 - 2x > 3x - 2$
- B  $1 - 2x > 3x - 5$
- C  $1 - 2x > 3x - 6$
- D  $1 - 2x > 3x - 7$

M02231

185. Which of the following is equivalent to  $9 - 3x > 4(2x - 1)$ ?

- A  $13 < 11x$
- B  $13 > 11x$
- C  $10 > 11x$
- D  $6x > 0$

M02531

188. Which equation is equivalent to  $\frac{x + 3}{8} = \frac{2x - 1}{5}$ ?

- A  $5x + 3 = 16x - 1$
- B  $5x + 15 = 16x - 8$
- C  $8x + 3 = 10x - 1$
- D  $8x + 24 = 10x - 5$

M13117

$$\frac{20}{x} = \frac{4}{x - 5}$$

186. Which of the following is equivalent to the equation shown above?

- A  $x(x - 5) = 80$
- B  $20(x - 5) = 4x$
- C  $20x = 4(x - 5)$
- D  $24 = x + (x - 5)$

M02403

189. Which equation is equivalent to  $2x + 2 - 4x = 6(x - 2)$ ?

- A  $-2x + 2 = 6x - 12$
- B  $-2x + 2 = 6x - 2$
- C  $2x + 2 = 6x - 12$
- D  $2x + 2 = 6x - 2$

M13109

## Algebra I

190. Colleen solved the equation  $2(2x + 5) = 8$  using the following steps.

Given:  $2(2x + 5) = 8$

Step 1:  $4x + 10 = 8$

Step 2:  $4x = -2$

Step 3:  $x = -\frac{1}{2}$

To get from Step 2 to Step 3, Colleen—

- A divided both sides by 4.
- B subtracted 4 from both sides.
- C added 4 to both sides.
- D multiplied both sides by 4.

M03139

191. Solve for  $x$ .

$$5(2x - 3) - 6x < 9$$

- A  $x < -1.5$
- B  $x < 1.5$
- C  $x < 3$
- D  $x < 6$

M02938

192. Which inequality represents the solution of  $(11x + 2) + (6x + 4) + (x + 5) > 90$ ?

A  $x > \frac{79}{18}$

B  $x > \frac{79}{17}$

C  $x > \frac{101}{18}$

D  $x > \frac{101}{17}$

M20669

193. What is the  $y$ -intercept of the line  $2x - 3y = 12$ ?

A  $(0, -4)$

B  $(0, -3)$

C  $(2, 0)$

D  $(6, 0)$

M02591

194. What are the coordinates of the  $x$ -intercept of the line  $3x + 4y = 12$ ?

A  $(0, 3)$

B  $(3, 0)$

C  $(0, 4)$

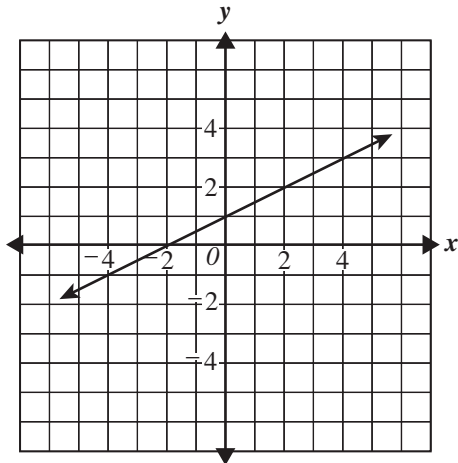
D  $(4, 0)$

M02462

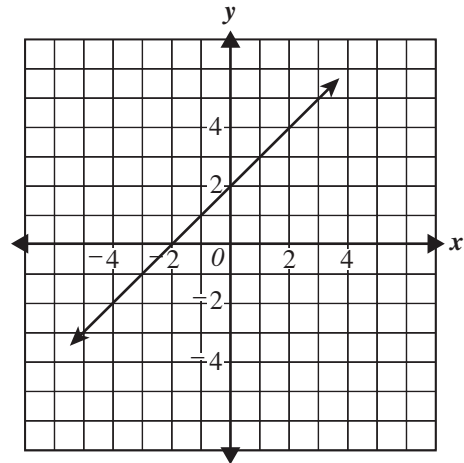
*Algebra I*

195. Which of the following is the graph of  $y = \frac{1}{2}x + 2$ ?

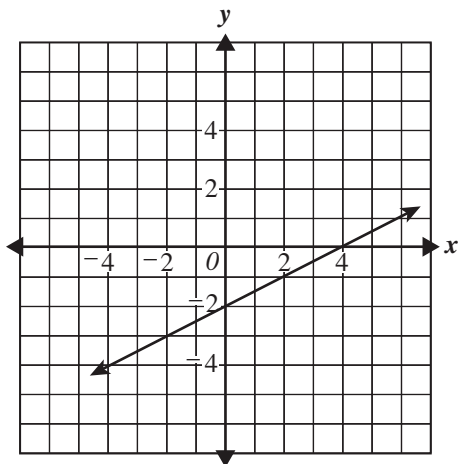
A



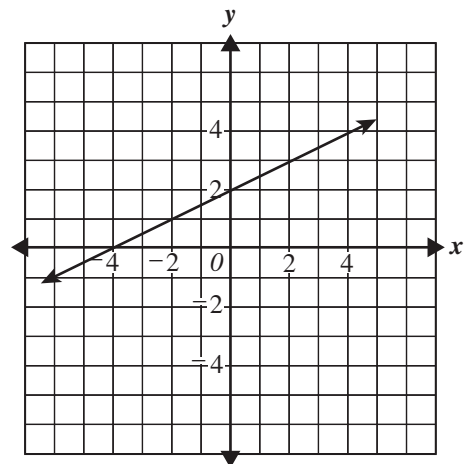
C



B



D

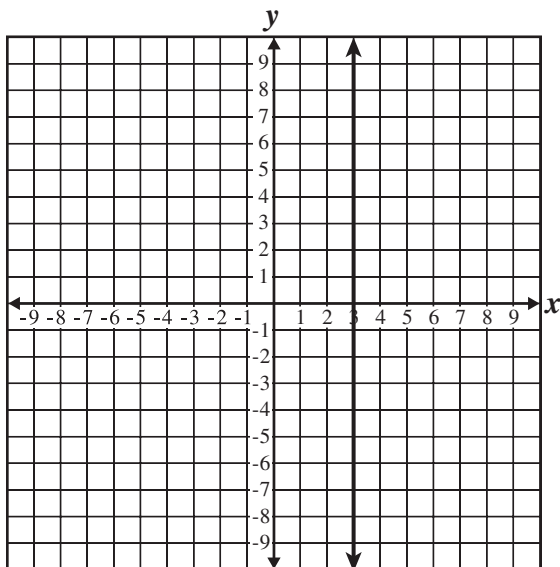


M02026

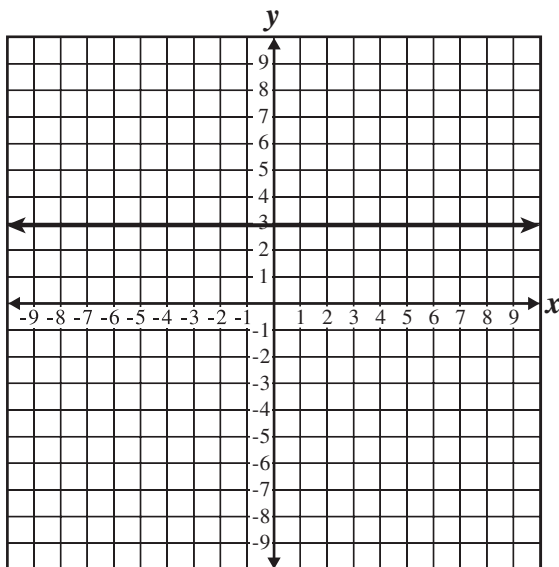
*Algebra I*

196. What is the graph of the equation  $x = 3$ ?

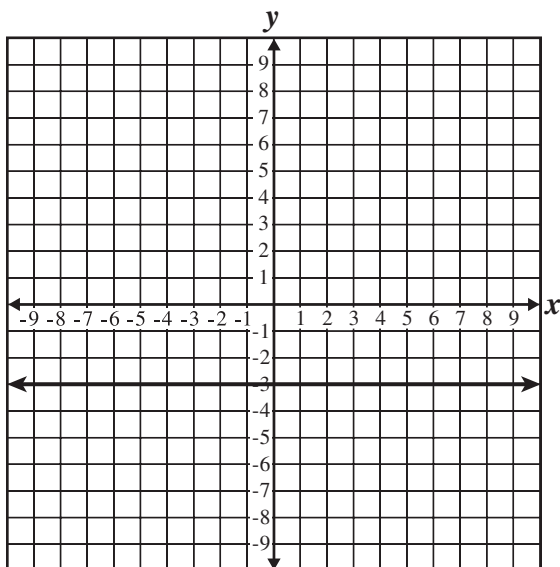
A



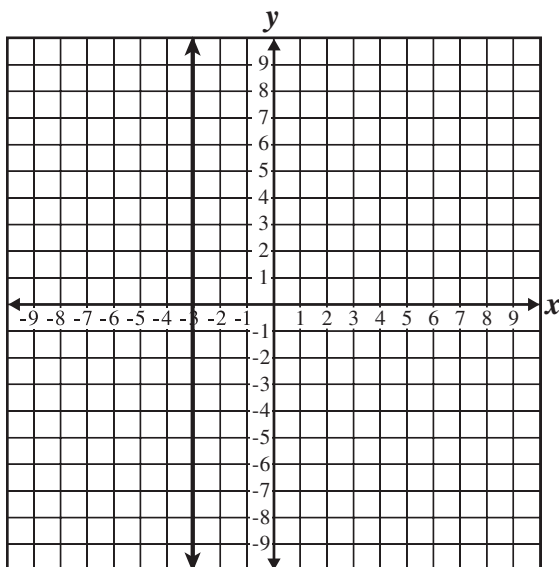
C



B



D



M13541

## Algebra I

197. What is the  $y$ -intercept of the line represented by the equation  $x + 4y = 3$ ?

- A  $\frac{3}{4}$
- B  $\frac{4}{3}$
- C 3
- D 4

M21492

198. Which of the following points lies on the line  $y = x$ ?

- A  $(-4, -4)$
- B  $(-4, 4)$
- C  $(4, -4)$
- D  $(-4, 0)$

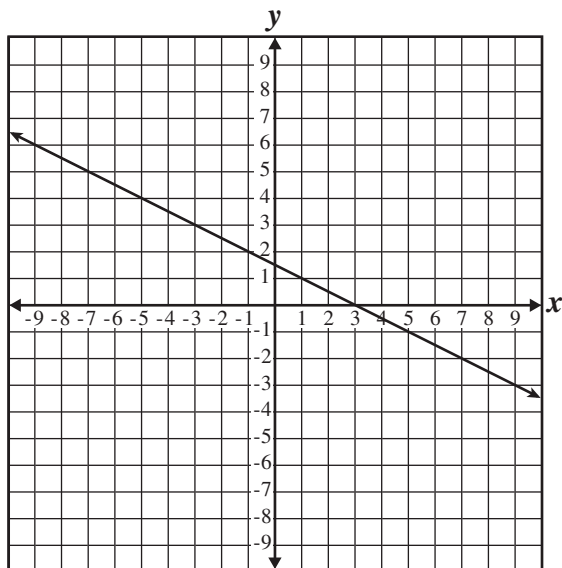
M02594

199. Which of the following points lies on the line  $4x + 5y = 20$ ?

- A  $(0, 4)$
- B  $(0, 5)$
- C  $(4, 5)$
- D  $(5, 4)$

M02565

200. Which equation represents the line on the graph below?



- A  $x + 2y = 3$
- B  $x + 2y = 5$
- C  $2x + y = 9$
- D  $4x + 2y = 3$

M22072

**Algebra I**

201. What is the slope of a line parallel to the

line  $y = \frac{1}{3}x + 2$ ?

A  $-3$

B  $-\frac{1}{3}$

C  $\frac{1}{3}$

D  $2$

M02653

202. Which of the following statements describes parallel lines?

A Same  $y$ -intercept but different slopes

B Same slope but different  $y$ -intercepts

C Opposite slopes but same  $x$ -intercepts

D Opposite  $x$ -intercepts but same  $y$ -intercept

M02610

203. Which of the following could be the equation of a line parallel to the line  $y = 4x - 7$ ?

A  $y = \frac{1}{4}x - 7$

B  $y = 4x + 3$

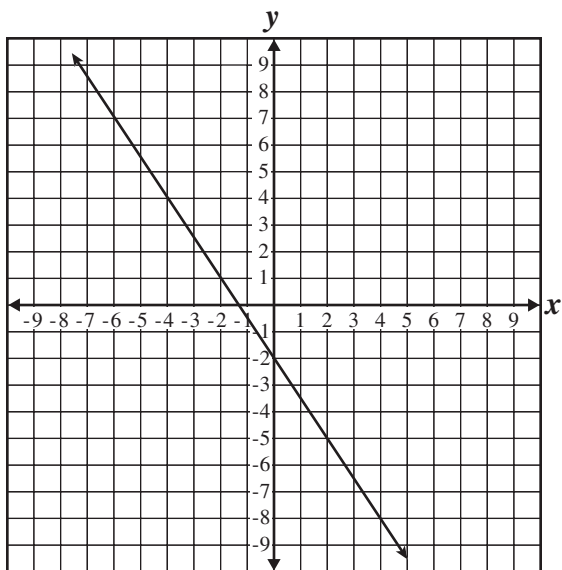
C  $y = -4x + 3$

D  $y = -\frac{1}{4}x - 7$

M02651

## Algebra I

204. What is the slope of a line parallel to the line below?



- A  $-\frac{3}{2}$   
 B  $-\frac{2}{3}$   
 C  $\frac{2}{3}$   
 D  $\frac{3}{2}$

M12410

$$\begin{cases} 7x + 3y = -8 \\ -4x - y = 6 \end{cases}$$

205. What is the solution to the system of equations shown above?

- A  $(-2, -2)$   
 B  $(-2, 2)$   
 C  $(2, -2)$   
 D  $(2, 2)$

M02956

$$\begin{cases} y = 3x - 5 \\ y = 2x \end{cases}$$

206. What is the solution of the system of equations shown above?

- A  $(1, -2)$   
 B  $(1, 2)$   
 C  $(5, 10)$   
 D  $(-5, -10)$

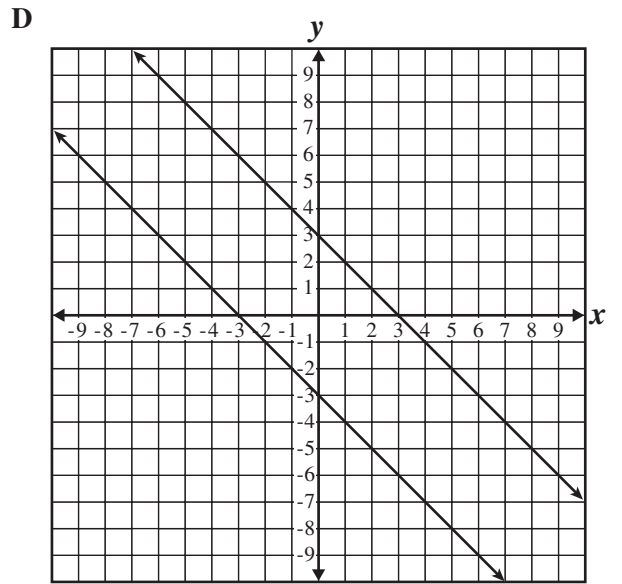
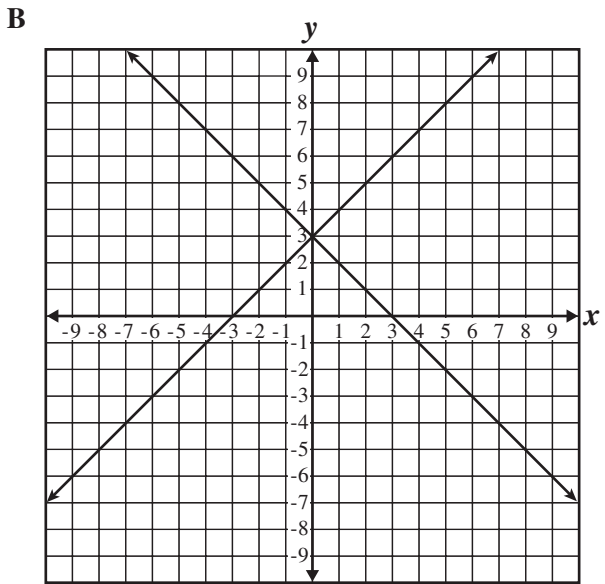
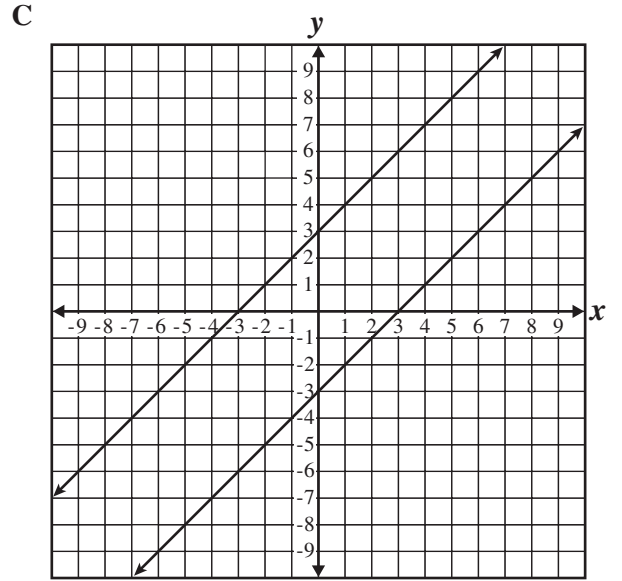
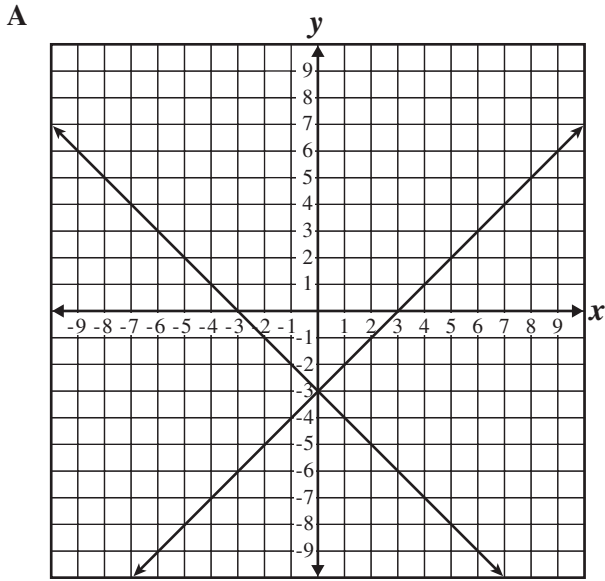
M02649



*Algebra I*

207. Which graph represents the system of equations shown below?

$y = -x + 3$ $y = x + 3$
--------------------------



M12449

## Algebra I

208. What is the  $x$ -coordinate of the solution to the following pair of equations?

$$\begin{cases} 2x + 3y = 7 \\ 3x - y = 5 \end{cases}$$

- A  $-2$   
 B  $-1$   
 C  $1$   
 D  $2$

M23086

209. Simplify.

$$(x^2 - 3x + 1) - (x^2 + 2x + 7)$$

- A  $x - 6$   
 B  $-x + 8$   
 C  $-5x - 6$   
 D  $2x^2 - x + 8$

M03355

211. Simplify.

$$\frac{4x^3 + 2x^2 - 8x}{2x}$$

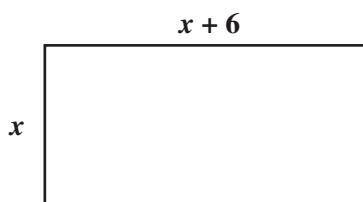
- A  $2x^2 + x - 4$   
 B  $4x^2 + 2x - 8$   
 C  $2x^2 + 2x^2 - 8x$   
 D  $8x^4 + 4x^3 - 16x^2$

M03354

212. Mr. Jacobs can correct 150 quizzes in 50 minutes. His student aide can correct 150 quizzes in 75 minutes. Working together, how many minutes will it take them to correct 150 quizzes?

- A 30  
 B 60  
 C 63  
 D 125

M03000



210. The length of the rectangle above is 6 units longer than the width. Which expression could be used to represent the area of the rectangle?

- A  $x^2 + 6x$   
 B  $x^2 - 36$   
 C  $x^2 + 6x + 6$   
 D  $x^2 + 12x + 36$

M00402

213. Ricardo runs 10 miles each Saturday. If he doubles his usual speed, he can run the 10 miles in one hour less than his usual time. What is his usual speed?

- A 2 miles per hour  
 B 3 miles per hour  
 C 4 miles per hour  
 D 5 miles per hour

M02561

**Algebra I**

**214. Yoshi has exactly one dollar in dimes (10 cents) and nickels (5 cents). If Yoshi has twice as many dimes as nickels, how many nickels does she have?**

- A 4
- B 8
- C 12
- D 15

M02410

**215. Diane delivers newspapers for \$5 a day plus \$0.04 per newspaper delivered. Jeremy delivers newspapers for \$2 a day plus \$0.10 per newspaper delivered. How many newspapers would Diane and Jeremy each need to deliver in order to earn the same amount?**

- A 30
- B 50
- C 75
- D 83

M02614

**216. A student store sold a total of 55 shirts for \$620. The shirts sold were either red or white. If the red shirts sold for \$12 each and the white sold for \$10 each, how many of each color of shirt were sold?**

- A 20 red  
35 white
- B 27 red  
28 white
- C 28 red  
27 white
- D 35 red  
20 white

M32234