### Algebra I

163. If x = -7, then -x =

- $\mathbf{A} = -7$

164. The perimeter, P, of a square may be found by using the formula  $\left(\frac{1}{A}\right)P = \sqrt{A}$ , 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

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

166. If x is an integer, what is the solution

to 
$$|x-3| < 1$$
?

- **A**  $\{-3\}$
- **B**  $\{-3, -2, -1, 0, 1\}$
- C {3}
- **D**  $\{-1, 0, 1, 2, 3\}$

167. 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}

168. 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

**— 64 —** 

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#### California High School Exit Examination

### Algebra I

169. 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

170. 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

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

171. 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

172. 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

173. 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** 
$$8x + 24 = 10x - 5$$

174. Colleen solved the equation 2(2x + 5) = 8using 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

175. Solve for *x*.

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

A 
$$x < -1.5$$

**B** 
$$x < 1.5$$

$$\mathbf{C}$$
  $x < 3$ 

**D** x < 6

# Algebra I

176. Which inequality represents the solution

of 
$$(11x+2)+(6x+4)+(x+5)>90$$
?

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

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

$$\mathbf{C} \quad x > \frac{10}{18}$$

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

177. What is the *y*-intercept of the line 2x - 3y = 12?

$$2x - 3y = 12$$

**A** 
$$(0, -4)$$

**B** 
$$(0, -3)$$
 **C**  $(2, 0)$ 

178. 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)

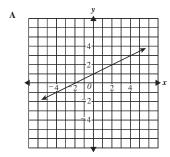
-66 -

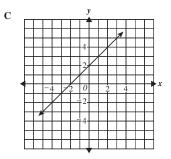
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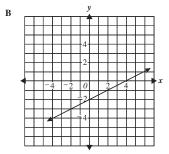
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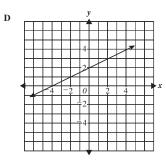
# Algebra I

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





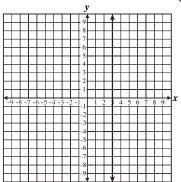




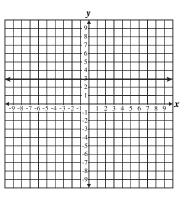
# Algebra I

180. What is the graph of the equation x = 3?

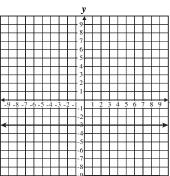
A



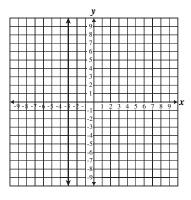
C



В



D



113541

**— 68 —** 

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### California High School Exit Examination

# Algebra I

181. Which of the following points lies on the line

$$y = x$$
:

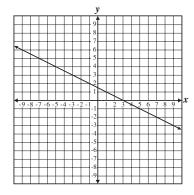
**A** 
$$(-4, -4)$$

$$\boldsymbol{B}\quad (-4,4)$$

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

M02565

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



$$\mathbf{A} \quad x + 2y = 3$$

**B** 
$$x + 2y = 5$$

C 
$$2x + y = 9$$

$$\mathbf{D} \quad 4x + 2y = 3$$

122072

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

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

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

$$C = \frac{1}{3}$$

185. 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

M02653

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

$$\mathbf{A} \quad y = \frac{1}{4}x - 3$$

**B** 
$$y = 4x + 3$$

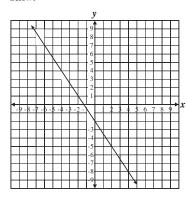
C 
$$y = -4x + 3$$

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

MO.

# Algebra I

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



$$A = -\frac{3}{2}$$

$$\mathbf{B} \quad -\frac{2}{3}$$

$$\mathbf{c} = \frac{2}{3}$$

$$\mathbf{D} = \frac{3}{2}$$

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

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

$$\mathbf{A} \quad \left(-2,-2\right)$$

$$\mathbf{B}\quad \left( -2,2\right)$$

$$C$$
  $(2,-2)$ 

$$\mathbf{D}$$
 (2, 2)

M02956

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

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

A 
$$(1, -2)$$

**D** 
$$(-5, -10)$$

M02649

70

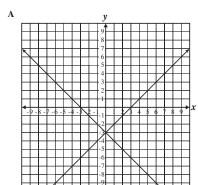
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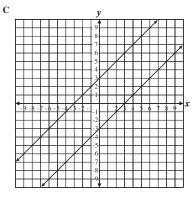
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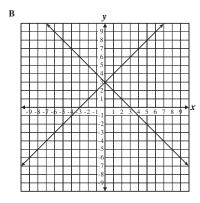
# Algebra I

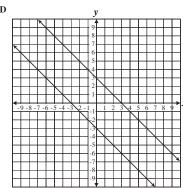
190. Which graph represents the system of equations shown below?

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









34124

# Algebra I

191. Simplify.

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

A r - 6

 $\mathbf{B} - x + 8$ 

C -5x-6

**D**  $2x^2 - x + 8$ 

M03355

M00402

194. 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

13355

x + 6

192. 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**  $x^2 + 12x + 36$ 

193. 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**  $8x^4 + 4x^3 - 16x^2$ 

195. 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.

A 2 miles per hour

What is his usual speed?

B 3 miles per hour

C 4 miles per hour

D 5 miles per hour

M02561

M03354

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