

UNIT 0: Algebra PRACTICE TEST

A Evaluate each expression.

1) $4 - \frac{3 \cdot 2}{6 - (10 - 7)}$

2) $\frac{10 + 7 - 5}{6 - (4 - 4)}$

B Solve each equation.

3) $5n + 30 = -8n + 7(2 + 3n)$

4) $-33 + 6x = -7(-2 - 7x) - 4$

C 5) $\left| \frac{v}{8} \right| + 5 = 6$

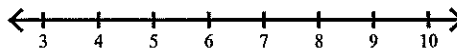
6) $\frac{|n + 2|}{4} = 3$

Solve each inequality and graph its solution.

D 7) $-2 - 7n < -5(-5n + 2) + 8$



8) $-6(m - 7) - 2m \geq 27 - 5m$

**E** Write the slope-intercept form of the equation of the line through the given points.

9) through: $(-1, 2)$ and $(0, -3)$

Write the slope-intercept form of the equation of the line described.

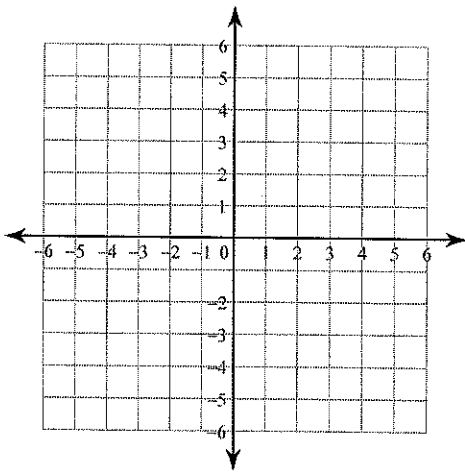
E

10) through: $(2, 2)$, perp. to $y = \frac{2}{3}x - 5$

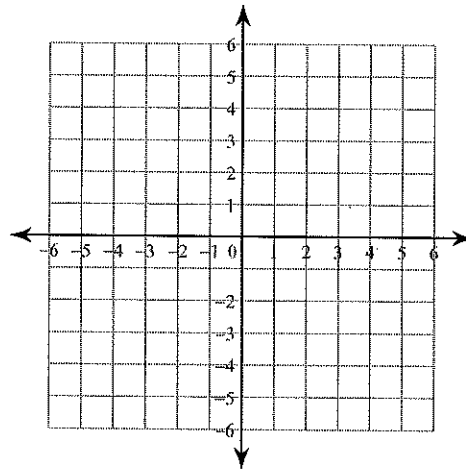
F

Sketch the graph of each line.

11) $y = -\frac{1}{2}x - 2$



12) $3x - 2y = 0$



G

Solve each system by any method.

13) $7x + 6y = -1$
 $3x + 10y = 7$

H

14) Daniel and Nicole are selling wrapping paper for a school fundraiser. Customers can buy rolls of plain wrapping paper and rolls of shiny wrapping paper. Daniel sold 5 rolls of plain wrapping paper and 6 rolls of shiny wrapping paper for a total of \$102. Nicole sold 8 rolls of plain wrapping paper and 13 rolls of shiny wrapping paper for a total of \$204. What is the cost each of one roll of plain wrapping paper and one roll of shiny wrapping paper?

Simplify. Your answer should contain only positive exponents.

I 15) $2a^0b^{-3} \cdot 2a^3b^2$

16) $\frac{(2x^0)^{-2}}{2x^{-2}}$

Simplify.

J 17) $5\sqrt{147v}$

18) $\sqrt{15}(2 + \sqrt{5})$

Solve each equation by factoring.

K 19) $k^2 - 11k + 30 = 0$

20) $8x^2 - 10x - 35 = 7x^2 - 8x$

Solve each equation with the quadratic formula.

L 21) $a^2 - 9 = 0$

22) $3x^2 = -8x - 5$