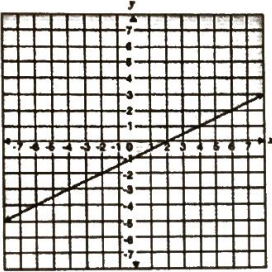


HW 5.30 ✓ +, -

57. Which expression represents $y^2 - 36$ in simplest factored form?

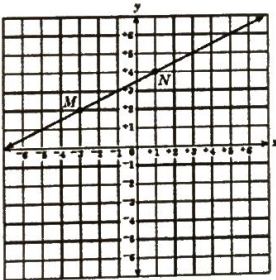
- A. $(y^2 + 4)(y^2 - 9)$
- B. $(y^2 + 4)(y - 3)(y + 3)$
- C. $(y^2 + 6)(y^2 - 6)$
- D. $(y^2 - 36)(y + 1)$

59. Which inequality is shown on the graph below?



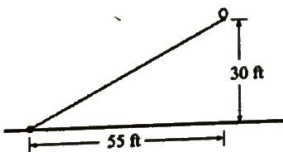
- ~~A.~~ $y < \frac{1}{2}x - 1$
 - ~~B.~~ $y \leq \frac{1}{2}x - 1$
 - C. $y > \frac{1}{2}x - 1$
 - D. $y \geq \frac{1}{2}x - 1$
- Shaded ABOVE!

61. Which is an equation of a line that is parallel to line \overline{MN} ?



- A. $2x - y = 3$
- B. $x - 2y = 3$
- C. $8x + 4y = 4$
- D. $9x + 18y = -9$

63. A long string with a balloon at the end was tied to the ground. After a breeze came up, the balloon was 55 feet to the right of where it was tied and 30 feet above the ground, as shown in the figure below.



What is the slope of the line between the balloon and the point where it was tied?

- A. $\frac{6}{11}$
- B. $\frac{11}{6}$
- C. 30
- D. 55

$$\frac{\text{rise}}{\text{run}} = \frac{30}{55} = \frac{6}{11}$$

65. A computer is purchased for \$1,200 and depreciates at \$140 per year. Which linear equation represents the value, V , of the computer at the end of t years?

- A. $V = 1,200 - 140t$
- B. $V = 140t$
- C. $V = 140t - 1,200$
- D. $V = 140(1,200 - t)$

subtract slope

58. Solve $x^2 - 7x + 10 = 28 \rightarrow x^2 - 7x - 18 = 0$
 $-28 - 28$ () ()
 A. $\{-4, -7\}$ $x = -4$ and $x = -7$ Factor!
 B. $\{-2, 9\}$ $x = -2$ and $x = 9$
 C. $\{5, 2\}$ $x = 5$ and $x = 2$
 D. $\{30, 33\}$ $x = 30$ and $x = 33$

60. What is the value of x in the equation: $6(4x + 5) = 3(x + 8) + 3$

- A. -3
- B. $-\frac{1}{7}$
- C. $\frac{1}{3}$
- D. 7

62. Simplify $\frac{14c^3d^2 - 21c^2d^3}{14cd}$
~~A. $d - \frac{3cd}{2}$~~
~~B. $c^2 - \frac{3c^2d}{2}$~~
~~C. $c^2 - 21c^2d^3$~~
~~D. $c^2d - \frac{3cd^2}{2}$~~

64. The distance traveled by a marble on a flat table as it rolls in a straight line is determined by the formula:

$$s = ut + \frac{1}{2}at^2$$

where
 s = Distance traveled
 u = Initial Velocity
 t = Time elapsed
 a = Acceleration

Which of the following shows the distance traveled formula solved for a ?

- A. $a = \frac{2s - 2ut}{t^2}$
- B. $a = \frac{2s - ut}{t^2}$
- C. $a = \frac{2s - 2u}{t}$
- D. $a = \frac{s - ut}{t^2}$

66. Which equation is equivalent to $5x - 2(7x + 1) = 14x$?

- A. $-9 - 2x = 14x$
- B. $-9x + 1 = 14x$
- C. $-9x - 2 = 14x$
- D. $12x - 1 = 14x$