S.ID.C.7: Slope 2a

1. The accompanying figure shows the graph of the equation \( x = 5 \).

What is the slope of the line \( x = 5 \)?
1) 5  2) −5  3) 0  4) undefined

2. What is the slope of a line represented by the equation \( 2y = x - 4 \)?
1) 1  2) \( \frac{1}{2} \)  3) −1  4) \( -\frac{1}{2} \)

3. What is the slope of the line whose equation is \( 2y = 5x + 4 \)?
1) 5  2) 2  3) \( \frac{5}{2} \)  4) \( \frac{2}{5} \)

4. What is the slope of the line represented by the equation \( 4x + 3y = 7 \)?
1) \( \frac{7}{4} \)  2) \( \frac{7}{3} \)  3) \( -\frac{3}{4} \)  4) \( -\frac{4}{3} \)

5. What is the slope of the line represented by the equation \( 4x + 3y = 12 \)?
1) \( \frac{4}{3} \)  2) \( \frac{3}{4} \)  3) \( -\frac{3}{4} \)  4) \( -\frac{4}{3} \)

6. What is the slope of the line whose equation is \( 3x - 7y = 9 \)?
1) \( -\frac{3}{7} \)  2) \( \frac{3}{7} \)  3) \( \frac{7}{3} \)  4) \( \frac{7}{3} \)

7. What is the slope of the line whose equation is \( 3x - 4y - 16 = 0 \)?
1) \( \frac{3}{4} \)  2) \( \frac{4}{3} \)  3) 3  4) −4

8. What is the slope of the linear equation \( 5y - 10x = -15 \)?
1) 10  2) 2  3) −10  4) −15

9. The line represented by the equation \( 2y - 3x = 4 \) has a slope of
1) \( -\frac{3}{2} \)  2) 2  3) 3  4) \( \frac{3}{2} \)

10. What is the slope of the line whose equation is \( 4x = 3(y + 8) \)?
1) \( \frac{4}{3} \)  2) \( \frac{3}{4} \)  3) \( -\frac{4}{3} \)  4) \( -\frac{3}{4} \)

11. Which linear equation represents a line that has a slope of \( \frac{2}{3} \)?
1) \( -2y = -3x + 6 \)  2) \( -3y = 2x + 6 \)
3) \( 3y = -2x + 6 \)  4) \( 3y = 2x + 6 \)

12. The line \( 3x - 2y = 12 \) has
1) a slope of \( \frac{3}{2} \) and a \( y \)-intercept of −6  2) a slope of \( -\frac{3}{2} \) and a \( y \)-intercept of 6  3) a slope of 3 and a \( y \)-intercept of −2  4) a slope of −3 and a \( y \)-intercept of 6
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Answer Section

1  ANS: 4  REF: 060012a

2  ANS: 2
   \[ y = \frac{1}{2}x - 2 \]
   REF: 011409ia

3  ANS: 3
   \[ \frac{2y}{2} = \frac{5x}{2} + \frac{4}{2} \]
   To solve for \( y \), divide the equation by 2.
   \[ y = \frac{5}{2}x + 2 \]
   REF: 010203a

4  ANS: 4
   \[ m = \frac{-A}{B} = \frac{-4}{3} \]
   REF: 011516ia

5  ANS: 4
   \[ m = \frac{-A}{B} = \frac{-4}{3} \]
   REF: 061319ia

6  ANS: 2
   \[ m = \frac{-A}{B} = \frac{-3}{-7} = \frac{3}{7} \]
   REF: 011122ia

7  ANS: 1
   \[ m = \frac{-A}{B} = \frac{-3}{-4} = \frac{3}{4} \]
   REF: 089919a

8  ANS: 2
   \[ m = \frac{-A}{B} = \frac{-(-10)}{5} = 2 \]
   REF: 060205a

9  ANS: 4
   \[ m = \frac{-A}{B} = \frac{-(-3)}{2} = \frac{3}{2} \]
   REF: 061212ia
10 ANS: 1
\[ 4x = 3y + 24 \]
\[ 4x - 24 = 3y \]
\[ y = \frac{4}{3}x - 8 \]

REF: 061615ia

11 ANS: 4 REF: 061509ia

12 ANS: 1
\[ m = -\frac{A}{B} = -\left(\frac{3}{-2}\right) = \frac{3}{2} \]
\[ y\text{-intercept} = \frac{C}{B} = \frac{12}{-2} = -6. \]

REF: 060428a