Chapter 3 Review extras

1. Suppose \( f(x) = 4x - 2 \) and \( g(x) = -2x + 1 \). Find the value of \( \frac{f(-3)}{g(-5)} \).

Write in standard form an equation of the line passing through the given point with the given slope.

2. slope = \( \frac{-6}{5} \); (1, -3)

Find an equation for the line:

3. through \((-4, 1)\) and perpendicular to \( y = \frac{-5}{3}x + 3 \).

4. through \((-1, 5)\) and parallel to \( y = 2x - 4 \).

5. Given the variables \( a, b, c, \) and \( d \). Use these variables to show
   a) Commutative property of addition
   b) Associative property of addition
   c) Distributive property
Chapter 3 Review extras

Answer Section

SHORT ANSWER

1. ANS: \[-\frac{1}{3}, \frac{3}{11}\]

   PTS: 1  DIF: L3  REF: 2-1 Relations and Functions
   OBJ: 2-1.2 Identifying Functions  TOP: 2-1 Example 6
   KEY: function notation

2. ANS: \[6 \cdot 9\]

   \[5x + y = -9\]

   PTS: 1  DIF: L3  REF: 2-2 Linear Equations
   OBJ: 2-2.2 Writing Equations of Lines  TOP: 2-2 Example 4
   KEY: point-slope form | standard form of linear equation

3. ANS: \[y = 3 \cdot \frac{17}{5}\]

   \[y = \frac{3}{5}x + \frac{17}{5}\]

   PTS: 1  DIF: L2  REF: 2-2 Linear Equations
   OBJ: 2-2.2 Writing Equations of Lines  TOP: 2-2 Example 7
   KEY: slope | perpendicular | equation of a line

4. ANS: \[y = 2x + 7\]

   PTS: 1  DIF: L2  REF: 2-2 Linear Equations
   OBJ: 2-2.2 Writing Equations of Lines  TOP: 2-2 Example 7
   KEY: slope | equation of a line