**1.** In point-slope form, the equation of a line with slope *m* that passes through
the point (*x*1, *y*1) is *y* − *y*1 = *m*(*x* − *x*1). Match the description of each line with the correct equation.

|  |  |
| --- | --- |
| **Description** | **Equation** |
| **1.** \_\_\_ slope = 4, passes through point (2, 3) | **A.** *y* + 3 = 4(*x* − 2) |
| **2.** \_\_\_ slope = 4, passes through point (2, −3) | **B.** *y* + 3 = 4(*x* + 2) |
| **3.** \_\_\_ slope = 4, passes through point (−2, 3) | **C.** *y* − 3 = 4(*x* − 2) |
| **4.** \_\_\_ slope = 4, passes through point (−2, −3) | **D.** *y* − 3 = 4(*x* + 2) |

**2.** Sandra is using the point-slope form *y* − *y*1 = *m*(*x* − *x*1) to graph the equation
*y* + 2 = −(*x* − 3). She completed the following steps.

Step 1: Plot a point at (3, 2).

Step 2: Plot a point 5 units up and 4 units left from (3, 2), at (–1, 3).

Step 3: Connect the points with a line.

In which step did Sandra make her first mistake? \_\_\_\_\_\_\_ Correct all mistakes and explain how to graph.

**3.** What is an equation of a line that passes through the points (1, 4) and (2, 9) in
point-slope form?

**4.** Put the following equations in slope-intercept form.

 **a.** *y* + 3 = −2(*x* + 1) **b.** *y* +1 = − (*x* + 5) **c.** *y* − 2 = 2(*x* + 3)

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