Name: _____ Class: _____ Date: _____ ID: A

Integrated IV Review Unit Skill Check

Multiple Choice

Identify the choice that best completes the statement or answers the question.

____ 1. Find the slope of the line that passes through the points (–1, 2), (4, –4)

a. $\frac{6}{5}$
b. $\frac{5}{6}$
c. $-\frac{6}{5}$
d. $-\frac{5}{6}$

____ 2. Write the equation of the line given the following:
slope: $\frac{2}{7}$, y-intercept: –3

a. $y=-\frac{2}{7}x-3$
b. $y=\frac{2}{7}x+3$
c. $y=\frac{7}{2}x-3$
d. $y=\frac{2}{7}x-3$

____ 3. Write the equation of the line that passes through the given point with the given slope:
$(4,-3)$, $m=-5$

a. $y=5x+17$
b. $y=-5x+23$
c. $y=-5x+17$
d. $y=-5x-17$

____ 4. Write the equation of the line that passes through the given points

$(-2,-3)$, $(-4,-4)$

a. $y=\frac{1}{2}x-2$
b. $y=-\frac{1}{2}x-2$
c. $y=\frac{1}{2}x+2$
d. $y=\frac{1}{2}x+\frac{1}{2}$

____ 5. Write the equation of the line that passes through the given points

$(-2,1)$, $(-3,-8)$

a. $y=9x+19$
b. $y=9x-29$
c. $y=9x-19$
d. $y=-9x+19$

____ 6. $(3x^2 - 5x + 7) + (4 - x)$

a. $3x^2 - 4x + 11$
b. $-4x + 11$
c. $-6x + 11$
d. $3x^2 - 6x + 11$

____ 7. $(4x^3 + 2x^2 - 3x - 1) - (x^3 - 3x - 2)$

a. $3x^3 + 2x^2 + 1$
b. $3x^3 + 2x^2 - 6x - 3$
c. $3x^3 + 2x^2 - 6x + 1$
d. $3x^3 + 2x^2 - 3$

____ 8. $(4x - 1)(x^2 + x + 1)$

a. $4x^3 + 5x^2 + 5x + 1$
b. $x^2 + 5x$
c. $4x^3 + 3x^2 + 3x - 1$
d. $4x^3 - 1$

Integrated IV Review Unit Skill Check
Answer Section

MULTIPLE CHOICE

1. ANS: C
The slope m of a nonvertical line through any two points is the ratio of the difference of the y-coordinates to the difference of the x-coordinates.

	Feedback
A	Did you subtract the x-coordinates in the same direction as the y-coordinates?
B	Did you find the ratio of the difference of the y-coordinates to the difference of the x-coordinates?
C	Correct!
D	Is that the run over the rise?

PTS: 1 DIF: Basic REF: Lesson 3-3 OBJ: 3-3.2 Find the slope of the line.
TOP: Find the slope of a line KEY: Slope | Lines

2. ANS: D
The linear equation $y = mx + b$ is written in slope-intercept form, where m is the slope and b is the y-intercept.

	Feedback
A	What is the slope of the line?
B	What is the y-intercept?
C	What is the slope?
D	Correct!

PTS: 1 DIF: Basic REF: Lesson 4-1
OBJ: 4-1.1 Write and graph linear equations in slope-intercept form.
NAT: NA 2 | NA 8 | NA 9 | NA 10 | NA 4 STA: MA-HS-5.1.5
TOP: Write and graph linear equations in slope-intercept form
KEY: Slope-Intercept Form | Linear Equations | Graphs

3. ANS: C
Find the y-intercept by replacing x and y with the given point and m with the given slope in the slope-intercept form. Solve for b. Write the equation in slope-intercept form using the given m and the calculated b.

	Feedback
A	What is the slope of the line?
B	What is the y-intercept?
C	Correct!
D	What is the y-intercept?

PTS: 1 DIF: Average REF: Lesson 4-2
OBJ: 4-2.1 Write an equation of a line given the slope and one point on the line.
NAT: NA 2 | NA 4 | NA 9 | NA 10 | NA 3 STA: MA-HS-3.4.3 | MA-HS-5.1.5
TOP: Write an equation of a line given the slope and one point on a line
KEY: Slope | Equations | Lines

4. ANS: A
Find the slope of the line with the slope formula. Find the y-intercept by replacing x and y with the given point and m with the slope in the slope-intercept form. Solve for b. Write the equation in slope-intercept form using the given m and the calculated b.

	Feedback
A	Correct!
B	Is the slope positive or negative?
C	What is the y-intercept?
D	How did you find the y-intercept?

PTS: 1 DIF: Average REF: Lesson 4-2
OBJ: 4-2.2 Write an equation of a line given two points on the line.
NAT: NA 2 | NA 8 | NA 9 | NA 10 | NA 6
STA: MA-HS-3.4.3 | MA-HS-5.1.5 | MA-HS-5.3.1
TOP: Write an equation of a line given two points on the line KEY: Slope | Lines | Equations

5. ANS: A
Find the slope of the line with the slope formula. Find the y-intercept by replacing x and y with the given point and m with the slope in the slope-intercept form. Solve for b. Write the equation in slope-intercept form using the given m and the calculated b.

	Feedback
A	Correct!
B	How did you find the y-intercept?
C	What is the y-intercept?
D	Is the slope positive or negative?

PTS: 1 DIF: Average REF: Lesson 4-2
OBJ: 4-2.2 Write an equation of a line given two points on the line.
NAT: NA 2 | NA 8 | NA 9 | NA 10 | NA 6
STA: MA-HS-3.4.3 | MA-HS-5.1.5 | MA-HS-5.3.1
TOP: Write an equation of a line given two points on the line KEY: Slope | Lines | Equations

6. ANS: D PTS: 1
7. ANS: A PTS: 1
8. ANS: C PTS: 1