MAT 050 Practice Test Chapter 10

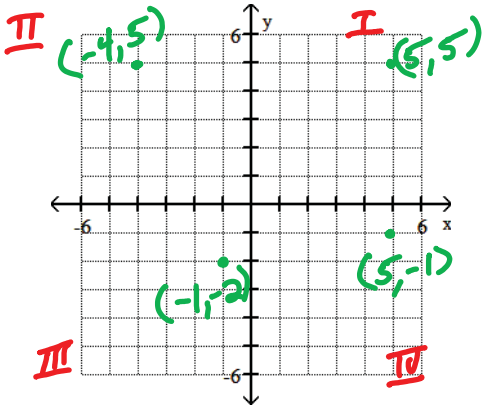
All test answers are to be in simplest form. A calculator may be used.
Cell phones, iPads, and other electronic devices with scanning or photo ability may NOT be used.
No notes, no books, no homework may be used while taking this test.

Students should be familiar with and able to use the following formulas.

$$m = \frac{y_2 - y_1}{x_2 - x_1} \qquad y - y_1 = m(x - x_1) \qquad y = mx + b \qquad Ax + By = C$$

Make a scatterplot by plotting the four points.

1) (5, 5), (−4, 5), (−1, −2), (5, −1)



State the quadrant in which the point lies.

2) (−17, 17) II

3) (9, −9) IV

4) (−10, 0) None (x-Axis)

Determine whether the ordered pair is a solution for the given equation.

5) $\frac{1}{2}x + \frac{1}{3}y = 4$, (4, 6) $2 + 2 = 4$ Yes

6) $0.05x - 2y = 28$; (400, 4) $20 - 8 = 28$ no

Complete the table of values for the given equation.

7) $4x + y = -24$;

x	−7	0	1
y	4	-24	-28

8) $3x - 4y = -12$;

x	0	4
y	3	0	6

Graph the given equation. Find the slope of the line and the *x*– and *y*–intercepts.

9) $-6x - 12y = 12$

10) $y = -5x + 15$

11) $x = 7$

12) $y = -6$

See pg. 2 for graphs

If possible, find the slope of the line passing through the two points.

13) (−5, −9), (6, −1) $= \frac{8}{11}$

14) (2, −2), (2, −7) undefined

15) (3.7, 4.2), (3.2, 2.7) $= 3$

16) (−3, 8), (7, 8) $= 0$

Sketch a line passing through the point and having slope m.

17) (0, 6), m = − 3

18) (−4, −9), $m = \frac{2}{3}$

See pg. 2 for graphs

Write the equation in slope–intercept form. Give the slope and *y*–intercept of the line.

19) $5x + 7y = 24$ $y = \frac{-5}{7}x + \frac{24}{7}$ $m = \frac{-5}{7}$ $b = \frac{24}{7}$

20) $15x - 4y = 3$ $y = \frac{15}{4}x - \frac{3}{4}$ $m = \frac{15}{4}$ $b = \frac{-3}{4}$

Find the equation of the line satisfying the given conditions. Write the equation in the indicated forms.

21) Slope –4, passing through (–3, 4)

Point–Slope Form: $y-4=-4(x+3)$

Slope–Intercept Form: $y=-4x-8$

22) Passing through (–4, 4) and (–2, 10) $m=3$

Point–Slope Form: $y-4=3(x+4)$ or $y-10=3(x+2)$

Slope–Intercept Form: $y=3x+16$

23) Parallel to $y = 2x - 9$, passing through (1, –5) $m_1=2 \quad m_2=2$

Point–Slope Form: $y+5=2(x-1)$

Slope–Intercept Form: $y=2x-7$

24) Perpendicular to $y=\frac{1}{3}x+19$, $m_1=\frac{1}{3} \quad m_2=\frac{-3}{1}$

passing through the point (–5, –6)

Point–Slope Form: $y+6=-3(x+5)$

Slope–Intercept Form: $y=-3x-21$

25) Given the line whose equation is $y = -2x + 6$

Identify the slope of the given line: $m=-2$

Identify the slope of a line parallel to the given line: $m=-2$

Identify the slope of a line perpendicular to the given line: $m=\frac{1}{2}$

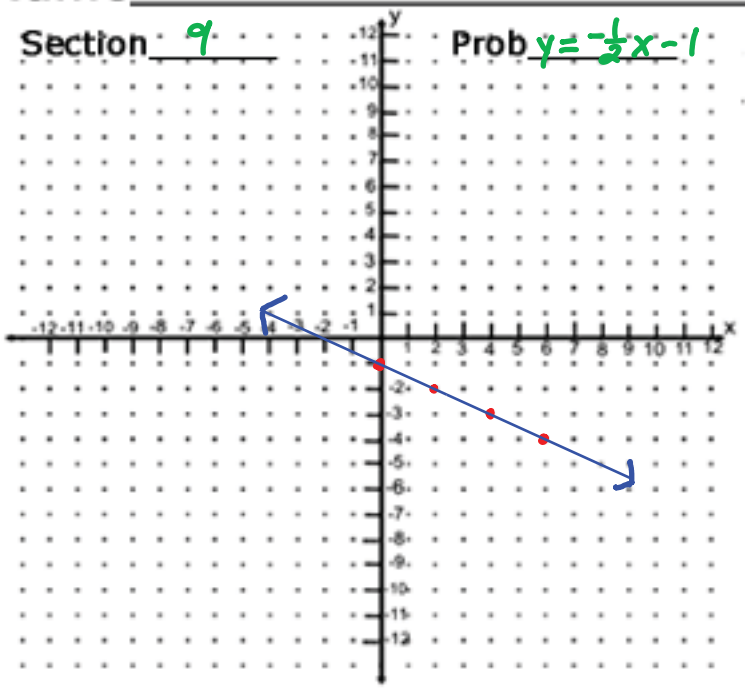
Find an equation of a line satisfying the following condition.

26) Vertical, passing through (–2, 5) $x=-2$

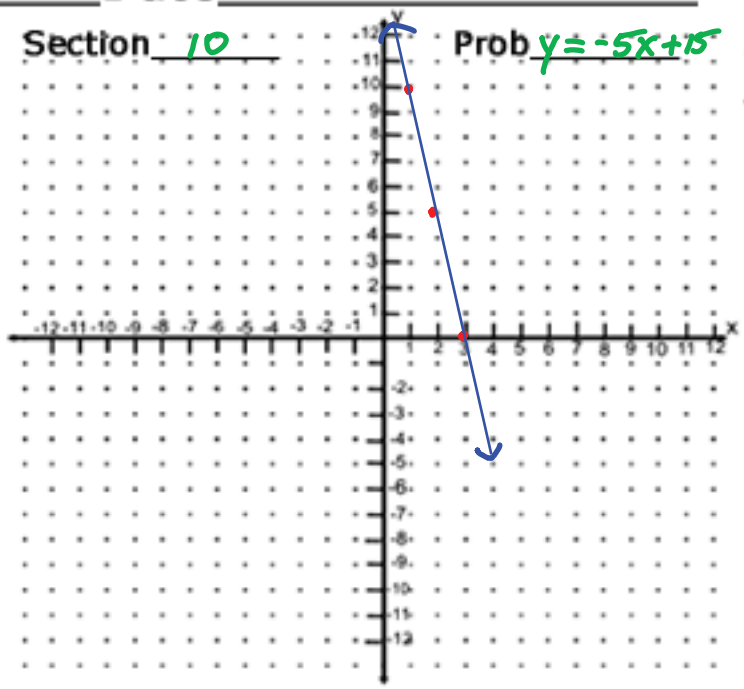
27) Horizontal, passing through (–1, 6) $y=6$

Name _____ Date _____

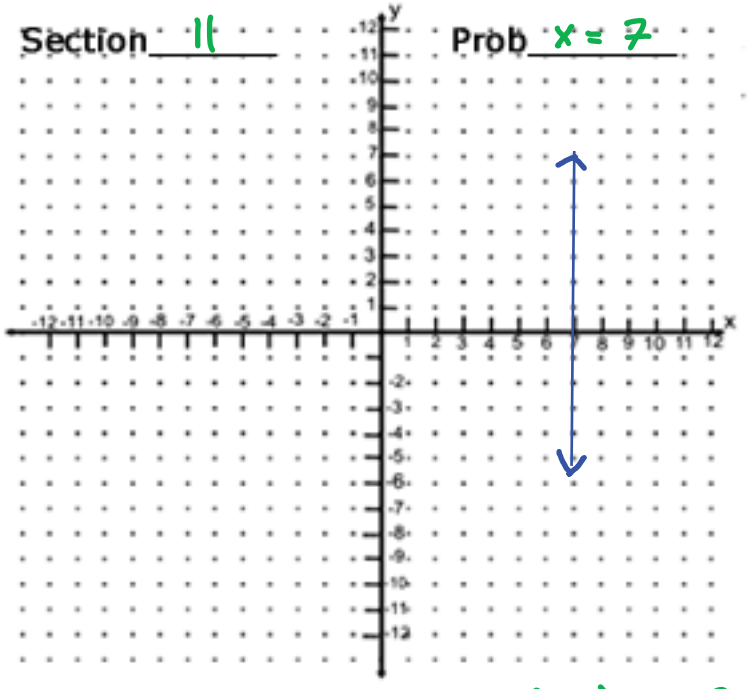
Section 9 Prob $y = -\frac{1}{2}x - 1$



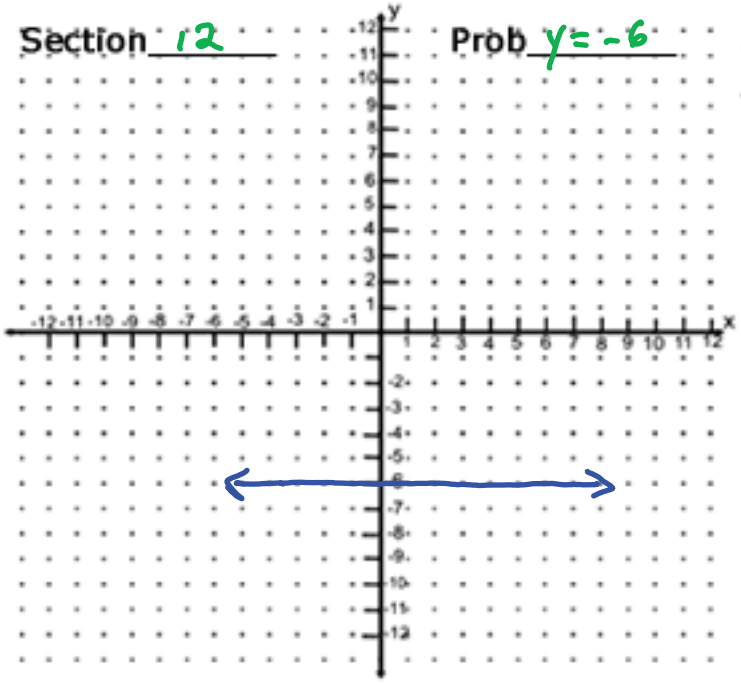
Section 10 Prob $y = -5x + 5$



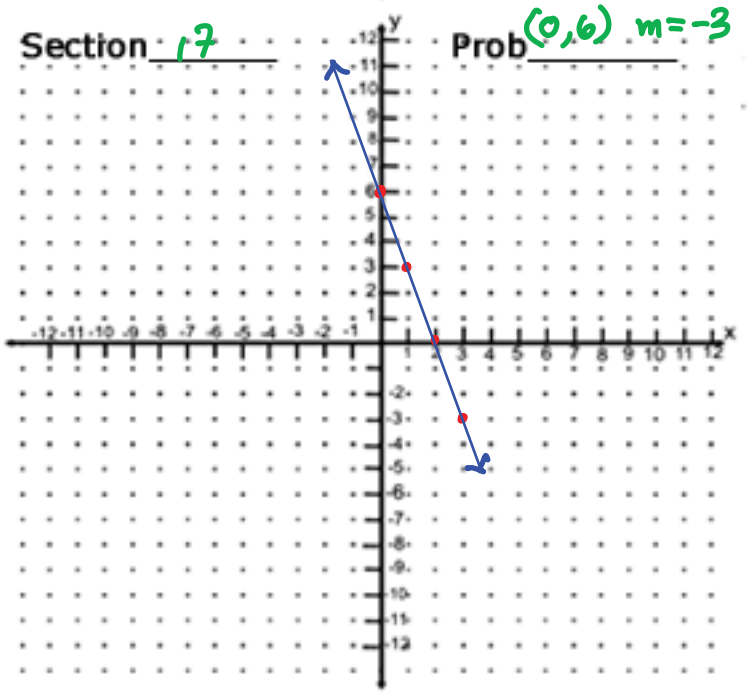
Section 11 Prob $x = 7$



Section 12 Prob $y = -6$



Section 17 Prob (0,6) $m = -3$



Section 18 Prob $(-4,-9)$ $m = \frac{2}{3}$