

Name \_\_\_\_\_  
MAC 1105 Diagnostic Follow Up

Course Days/Start Time \_\_\_\_\_

**Instructions:**

- Get help for the topics you missed on the diagnostic worksheet.
- Do these problems for each of the problems you got incorrect on the diagnostics worksheet.
- Do not use any calculators.

1) Subtract:  $-19 - (-12)$

2) Simplify:  $-11^2$

3) Simplify:  $\frac{7}{0}$

4) Evaluate  $-xy - 2z$  when  $x = -3, y = 8, z = -1$

5) Simplify  $\frac{15x^{16}y^3}{45x^8y^8}$  and answer with only positive exponents.

6) Simplify  $(3x^6y)(-5x^9y^6)$  and answer with only positive exponents.

7) Simplify:  $(2x^2 - 5x + 4) + (8x^2 + x - 11)$

8) Subtract:  $(6x^2 - 2x - 3) - (-2x^2 - 5x + 7)$

9) Multiply:  $(3x - 5)^2$

10) Multiply:  $(3x + 2)(4x - 5)$

11) Factor out the GCF and write in factored form:  $7x^8 - 21x^4$

12) Factor completely:  $x^2 - 64$

13) Factor completely:  $2x^2 - 3x - 20$

14) Solve for  $x$ :  $5(2x + 3) = 8(x + 2)$

15) Solve for  $x$ :  $\frac{1}{3}x - \frac{1}{2} = \frac{5}{12}$

16) What is the slope of the line  $y = 3x + 2$ ?

17) Plot the coordinates on the top graph provided.  
 $(3, 0), (-1, -3), (5, 2)$

18) Graph  $y = \frac{2}{3}x - 2$  on the bottom graph provided.

