

Math 103 Professor Katiraie Quiz One Name _____
 Chapter One

Note: Show all work. Unless a problem is marked with an asterisk (*), use a calculator only to check.

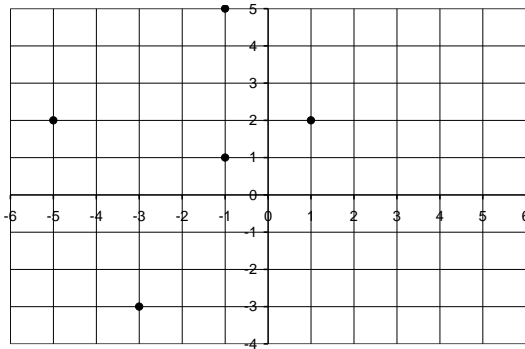
1. Simplify: $\left(\frac{x^3 y^{-5} z^{-2}}{x^5 y z^{-4}}\right)^{-2}$ (Assume no variables are equal to zero.) (4 points)

*2. If $S = \frac{4}{3}\pi r^3$ find S when $r = 6$. (2 points)

3. Find the domain and range of each relation. (2 points)

- a. $\{(1,2)(3,4)(5,6)(7,8)(9,10)\}$ Domain:
 Range:

b.



Domain:

Range:

c.

x	1	2	3	4	5
y	1	6	3	3	3

Domain:

Range:

*4. Evaluate with your calculator and answer to the appropriate number of significant digits. (2 points)

a. $\frac{5 \pm \sqrt{129}}{6(14)}$

b. $5432.01(1 + \frac{.042}{12})^{12(7)}$ Assume this is a calculation involving money.

5. Solve the following algebraically $3 - 5x = \frac{1}{3}x + 7$ (2 points)

Solve: (2 points Each)

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

7. $t^2 - 7t + 12 = 0$

8. For the line $7x - 2y = 14$, find the (4 points)

a. slope

b. y-intercept

c. x-intercept