

Math 115 Quiz 1: Up thru § 1.5
Mon 20 September 2010

Name: _____

You have 15 minutes to complete this quiz. No calculators allowed. Eyes on your own paper and good luck!

1. Definitions/Concepts. (1 pt each) Write down the definition of

(a) function

(b) linear function

2. Questions/Problems. (1 pt each)

Let x be the number of months that a shotput¹ thrower has practiced her sport. Let $f(x)$ be the resulting distance (in meters) she can throw the shotput. (We assume that this distance is a function only of x , and ignore factors like innate ability.) For each of these expressions, translate its meaning into nonmathematical terms:

(a) $f(3)$

(b) $f(20) = 12$

(c) $f^{-1}(16)$

Translate each of these wise sayings by Coach Ironarm into a mathematical equation or expression:

(a) "...twice as far as I can throw the shot, and I've been doing this for ten years!" (how far is this distance, in terms of f ?)

(b) "A rookie with no practice can usually throw a good 4 meters."

3. Computations/Algebra. (1 pt each)

(a) If $m(z) = z^2$, simplify $m(z + h) - m(z)$.

(b) Convert the angle $\frac{\pi}{6}$ to degrees.

¹A *shotput* is a dense metal ball thrown for distance by men and women in athletic competition.