

Score 102: Quiz 2

Key

There are two sides to this quiz. You can use a calculator and a one-sided 3x5" notecard with anything written or typed on it.

1. For the following use the figure to the right.

(a) [2] (Weater §3.1 #2) Identify a pair of alternating interior angles.

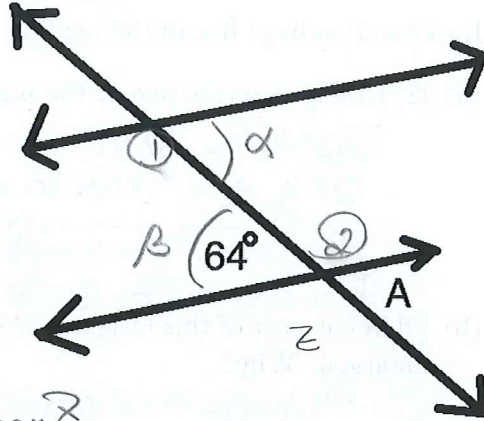
α and β work
as does ① and ②

(b) [2] (Weater §3.1 #5) Identify a pair of vertical angles.

A and β work
Z and Z work

(c) [2] (Weater §3.1 #18) Find the measure of angle A.

64°
① b/c A is a vert angle to β which has measure 64°



start 1.5
pair 1.5
interior 1.5
alternating 1.5

start 1.5
pair 1.5
vertical angles 1

So many?

start 1

2. [4] (Activity3 #7) Assume you are given a set of lines with a transversal. If the corresponding angles have the same measure, explain why the alternating interior angles must have the same measure.

start 1.5
create blobs 1

sense 1.5
reasoning 1
correct 1

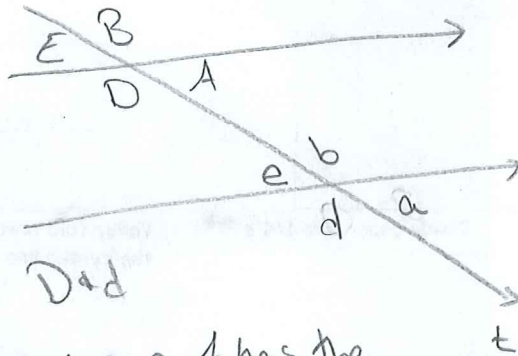
let t be the transversal line. Use the labeling scheme shown to the right where

A & a, B & b, E & e, and D & d are corresponding angles. This means A has the same measure as a and similarly for B & b, E & e, and D & d.

Notice A and E are vertical angles.

Since e has the same measure as E (b/c corresponding) and E has the same measure as A (b/c vertical)

we know e has the same measure as A. Note e & A are alternating interior angles. Similar reasoning gives D and D have the same measure.



3. [2] (Lang §3) Name at least two different kinds of sink folds.

Lang language (1.5)

open, closed, mixed, *double*, *spread*

4. (LockhartReading) Recall the reading "A Mathematician's Lament" by Paul Lockhart.

got one (1.5)

(a) [2] Briefly describe one of the nightmares.

Students learn music without getting to actually play any instruments. Instead, the students discuss "theory".
 Students learn art without getting to do any first hand.
 For example students are not allowed to paint.

(b) [2] What part of this Origami Math class would Lockhart think is the most mathematical. Why?

Perhaps the activities - they are open ended & largely focused on working through an open ended problem.
 (Other answers would be accepted if the reasoning makes sense)

5. [4] (FoldingDay 9/30) Follow the directions below to fold a shirt.

