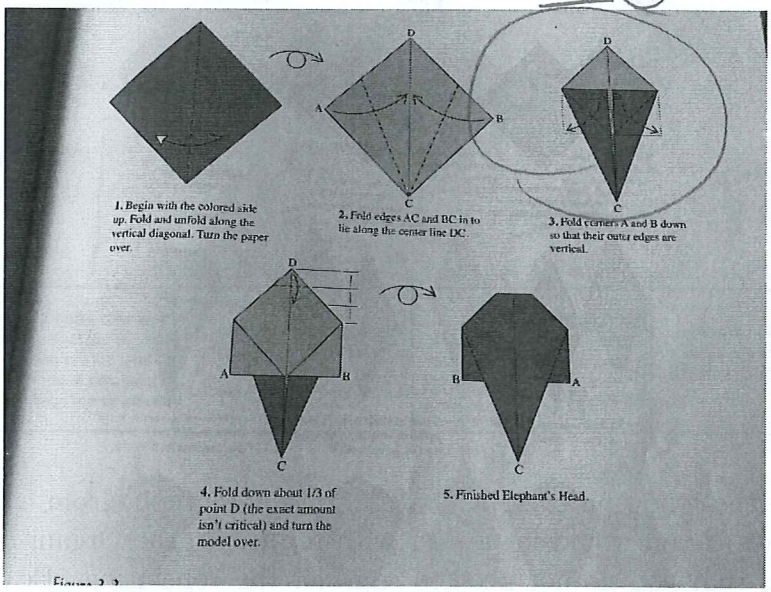
Key

tcore 112: Quiz 3

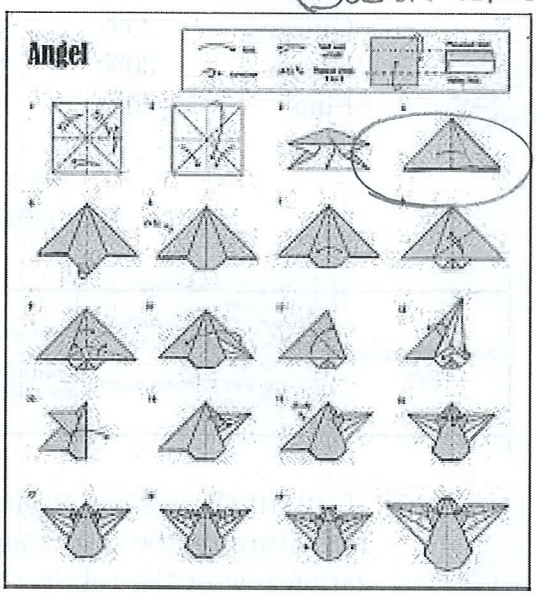
There are two sides to this quiz. You can use a calculator and a four-sided 3×5" notecard with anything written or typed on it.

1. [4] (Lang pg 53-58) For each of the following origami patterns, identify the base(s) used.

Kite (+1)

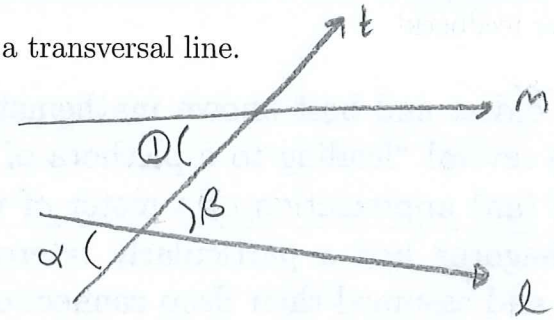


(+1) waterbomb



start (+.5)
base in key (+1)
sense (+.5)

2. [2] Draw a transversal line.



t is transversal b/c t crosses two other lines (m & l)

start (+.5)
lines (+.5)
crosses 2 lines (+.5)
indicate which (+.5)

3. [2] (Wheater §3.1 #5) On the drawing you made above, identify a pair of vertical angles. There are so many answers!

α and β work

angles (+.5)
pair (+.5)
vertical (+1)

4. [2] (Wheater §3.1 #2) On the drawing you make above, identify a pair of alternating interior angles. 1 and β work

(note: there is another pair that could also work)

angles (+.5)
pair (+.5)
alternating (+.5)
interior (+.5)

5. [2] (GradingActivity #1b) When computing the average score for each category in this class, are there any scores you can ignore/drop? If so, which ones and why?

(+1) The lowest quiz score?

(+.5) The syllabus indicates that the lowest score is dropped.

sense (+.5)

6. [4] Tony Stark enrolls in a class with four categories (Homework, Quizzes, Exams, Final) weighted as shown below. In week 7 Tony is getting nervous about his marks in the class and would like to know, (assuming that his homework & quiz averages do not change much) what grade does he need to get a 70% in the class. The averages are already computed for Tony in the table below.

Category	weight	Tony's ave
Homework	25%	0%
Quizzes	25%	80%
Exams	30%	100%
Final	20%	x

let x be the % on the final

Course % = % from HW + % from Quiz + % from Exam + % from Final (+.5)

$70 = 0 \cdot 25 + .80 \cdot 25 + 1 \cdot 30 + x \cdot 20$

$70 = 0 + 20 + 30 + 20x$

$70 = 50 + 20x$

$20 = 20x \Rightarrow x = 100\%$

solve/correct (+.5) algebra (+1)

Writing Organization & Style	•intro or conclusion is missing •content is presented in a confusing manner •paragraphs & sentences are badly constructed	•Intro or conclusion is poorly written •content is present •most paragraphs & sentences are awkward	•intro or concl. are well organized •content is present but not well organized •some paragraphs & sentences are awkward	•intro & concl. are generally organized •organized most of the way through •a few sentences are awkward	•has well written & organized intro, concl. •well organized throughout the paper •Paragraph & sentence structures are used well

intro

7. [4] (2/10 Discussion) Evaluate the following excerpt (1st and 2nd paragraph) from a Literature review of Pythagorus as you would for a peer with respect to the Organization row of the rubric. Note that you do not need to consider the conclusion. Be careful to provide effective peer feedback!

level of detail should not be in intro

Pythagorus is one of the oldest and best known mathematicians. Croton was experiencing a religious revival "leading to a plethora of quasi-religious communities...(that) shared (an) appreciation of a roster of taboos and rituals" (Barrow 1992). Pythagorus had a particularly interesting one that seemed to worship numbers and assumed their deep connection with, among other things, geometry.

Perhaps even more famous than the mathematician is the theorem that bears his name. The theorem relates to triangles. Let us denote the three side lengths of a triangle with letters, a, b, and c. Many know the Pythagorean theorem as "A right triangle satisfies the equation, $a^2 + b^2 = c^2$ where c is the length of the hypothenuse". This version of the Pythagorean theorem is quite useful in finding unknown lengths computationally. Interestingly, this is only *half* of the theorem! In particular, if $a^2 + b^2 = c^2$, then we can say that the triangle has a right angle. This second half of the Pythagorean Theorem thus gives us a way of checking if an angle is 90° or not.

nice transition to the theorem

nice plain-talk symbols before use

include a picture

The introduction is not summarizing the Paper? or note the 1st ¶ is focused on the Pythagorean Theorem & the theorem is not even mentioned in the "intro"