

Key

### tc core 102: Midterm

You can use a calculator & a 4-sided 3x5" notecard with anything written or typed on it.

1. [6] TRUE/FALSE: Refer to the diagram below when answering the following questions. Note that  $\overline{HF}$  is parallel to  $\overline{AG}$ . If true, circle T, otherwise circle F. Then explain briefly justify your answer.

answer correct (1.5)  
 start justify (0.5)  
 justify (1)

(T) F The point C is on the ray  $\overrightarrow{AB}$ .

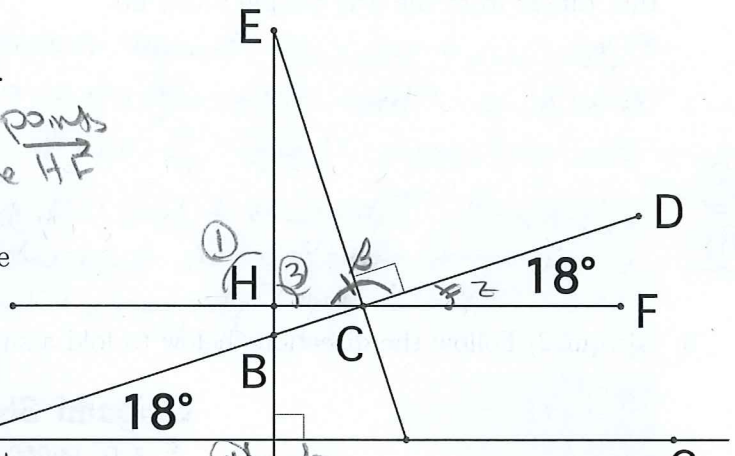
The line segment starting at A & passing thro B goes on to pass thro C

(T) F C is on the line  $\overleftrightarrow{HF}$ .

C is between points H and F on line  $\overleftrightarrow{HF}$

(T) F  $\angle HCB$  has the same measure as  $\angle BAG$

note  
 $\angle HCB = \angle FCD$   
 b/c of vertical angles  
 angles  $\Rightarrow \angle HCB$  is  $18^\circ$   
 Since  $\angle BAG$  is also  $18^\circ$ , the two are equal.



OR  $\overline{HF} \parallel \overline{AG}$   
 and  $\angle HCB$  &  $\angle BAG$  are alternate int. angles

2. [2] Identify a transversal line to  $\overline{HF}$  and  $\overline{AG}$ .

$\overline{AD}$  works

OR  $\overline{EH}$

OR  $\overline{EC}$

start (1.5)  
 line (1.5)

is transversal (1)

3. [2] Identify a pair of alternating exterior angles with respect to the transversal you found above.

$\alpha$  and  $\beta$  work

(I had to extend  $\overleftrightarrow{AB}$ )

$\angle$  and  $w$  work

OR (1) and (2) work

(3) and (4) work

start (1.5)  
 pair of angles (1.5)  
 ext. (1.5)  
 alt (1.5)

4. [3] (Quiz2 #4) Recall the reading "A Mathematician's Lament" by Paul Lockhart. Briefly describe one of the nightmares.

start (+.5)  
 sens (+.5)  
 in lockhart (+1)  
 aware (+1)

Students learn music without actually getting to play any instruments. Instead students love on "theory"

OR

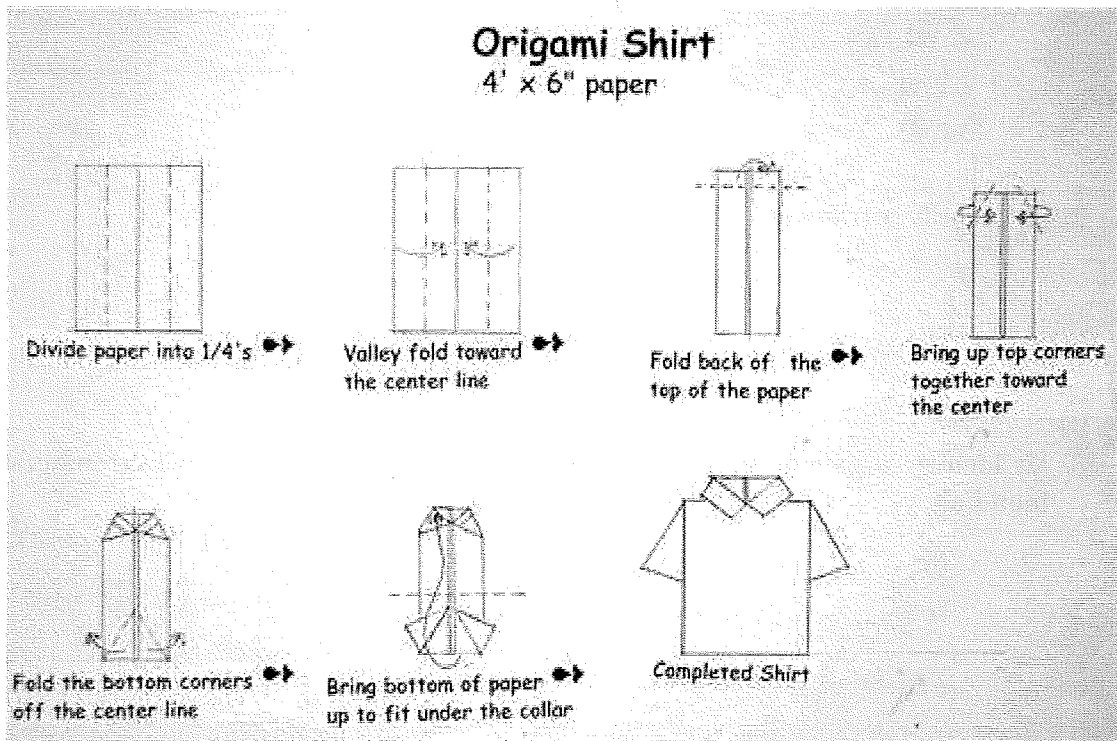
Students learn art without getting to do any! For example students don't get to use paint

5. [4] (ViHart Video) Describe how Pythagorus and his cult thought of numbers and how that differs from the way people today do.

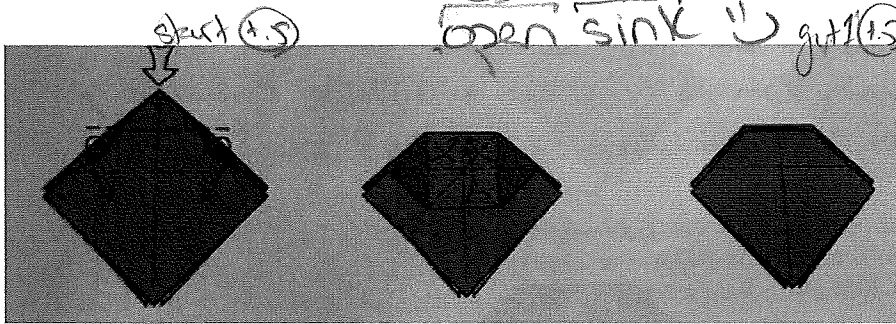
start (+1)  
 two (+1)  
 from video (+1)  
 about #'s (+1)

Pythagorus & his cult thought numbers were discrete & did not think to "line" them up on a number line. The #  $\frac{3}{2}$  was in between 1 and 2 but a relationship between 3 and 2. Additionally Pythagorus & his cult thought all numbers could be written as a ratio of two whole numbers. Irrational numbers were denied by Pythagorus & his cult.

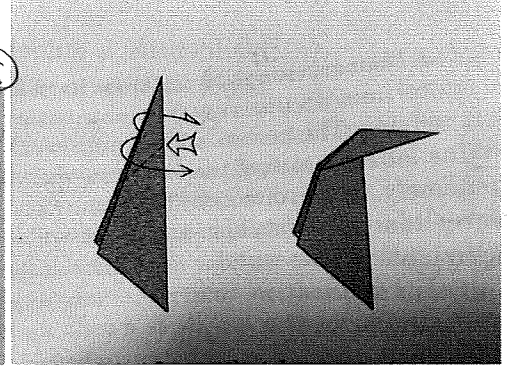
6. [4] (quiz2) Follow the directions below to fold a shirt.



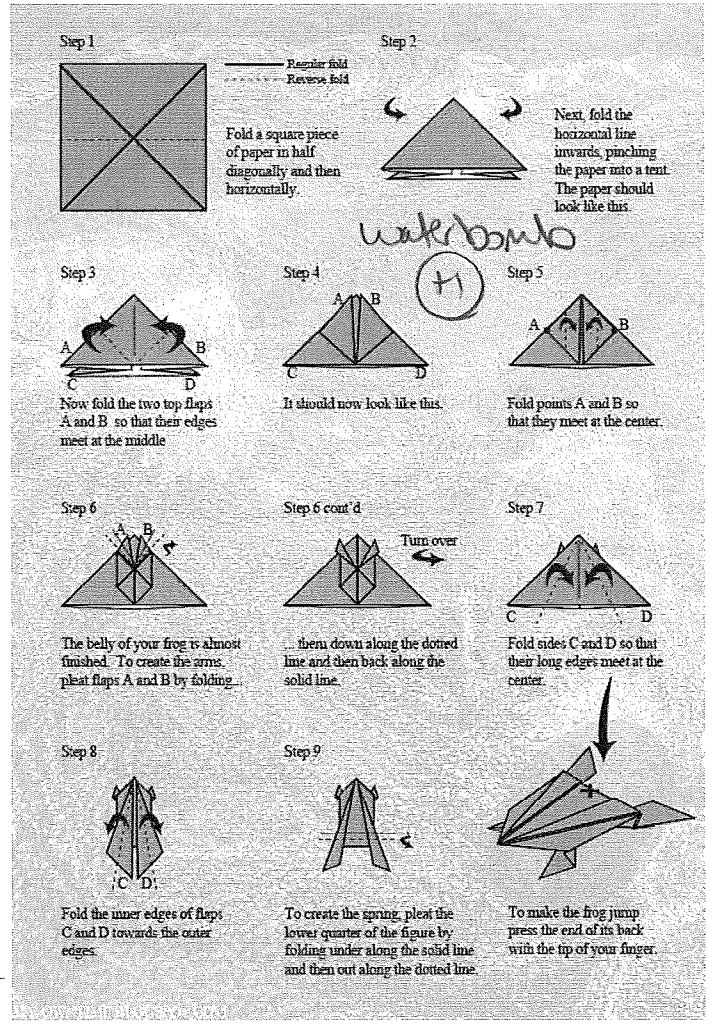
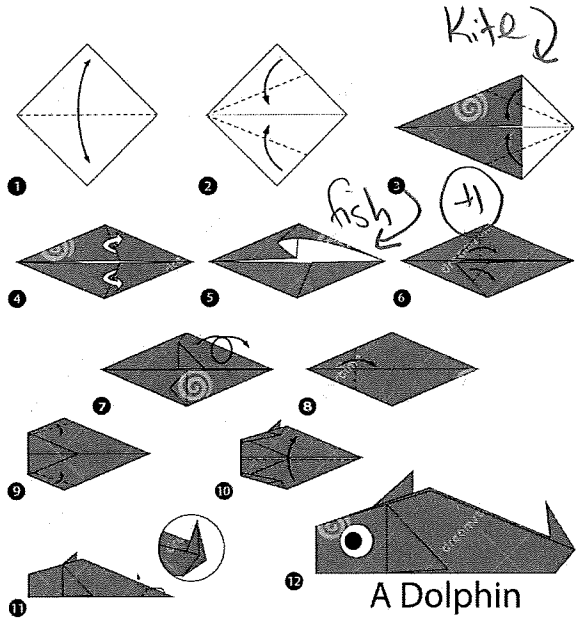
7. [4] (Quiz1 #5 & HW2) Name each kind of fold that is shown:



start (+.5)  
got me (+.5)  
outside (+.5) reverse fld (+.5)



8. [4] (Lang §4) Identify the base that each origami pattern makes use of (note that there may be more than one correct answer).



start (+1)  
base from Lang (+1)

9. (Technical Communication Today)

- (a) ~~3/4~~ Identify a guideline given in Technical Communication Today that you don't think applies in a Literary Review. Justify yourself.

Start (+1)  
in TLT (+1)  
does not apply (+1)  
sense (+5)

Since the literary Review is unlikely to include directions it seems like there is no need to number steps.

- (b) ~~3/2~~ (10/21 Lecture) Name a guideline from the Technical Communication Today readings that is appropriate for verbal presentations.

start (+5)  
in TLT (+1)  
applies (+1)  
sense (+5)

Use precise language  
Use concise language  
Use command voice  
include illustrations  
organize the material

10. [3] (Journal12, Lecture 10/7, Quiz3#1) Identify any techniques/skills/information thus far introduced in this class that you can transfer/use in other/future classes.

sense (+1)  
start (+5)  
got one (11.3)

Use from instructor; I would hope that there are lots of things you can put here?

Peer Review Techniques when considering a paper.  
Exam a case study techniques & understanding some common practices (like highlighting texts is NOT as effective)  
Test anxiety resources & general course help services on campus.  
Writing precisely whether that is in a technical/math/science environment or not.

11. [2] What concept did you study for and not see on this exam?