

tc core 122: Quiz 3

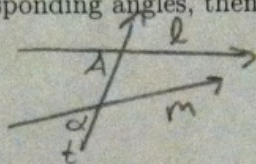
Key

1. [4] (Lecture 4/16 & Lang) TRUE/FALSE: Refer to the diagram above when answering the following questions. If true, circle T and explain briefly why the statement is true. Otherwise, circle F.

T (F) If A and α are corresponding angles, then $A \cong \alpha$

clear (S)
reasoning (S)

for example

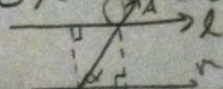


t transverses lines l and m making A and α corresponding angles but α is smaller than A .

(T) F If line l and m are parallel, then the corresponding angles are congruent.

clear (S)
reasoning (S)

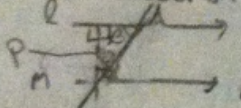
We discovered that result in WKS 3 / or you read it in Wheeler / or we can "prove" it. If $l \parallel m$ consider



(T) F The converse of the above true/false question. That is, if the corresponding angles (made

we discovered this in WKS 3 / read it in Wheeler / can "prove" it too?

clear (S)
reasoning (S)



Let β be the angle across from A . Since $A \cong \alpha$ and A and β are vertical angles $\beta \cong \alpha$. Construct 2 lines \perp to l . We $p = 90 - \beta$. Since there are 360° in a circle \perp vert. angles are congruent

T (F) There is only one way to fold an elephant in Origami. $\Rightarrow \alpha \cong \beta \therefore \alpha \cong A$.

clear (S)
reasoning (S)

Lang said there were entire origami shows of just elephants?

2. [2] (Lecture 4/16) Name two physical tools that Pythagorus and his followers had available to investigate math with.

(+) approach

Sand/dirt (certainly not paper?)

Abacus

Compass

straight edge

3. [4] (viHart) Explain the difference between how Pythagorus thought/worked with numbers and how people today think/work with numbers.

inadequate (H)
ontology (H)
true (H)
series (H)

Pythagorus didn't think of numbers on a number line!
The number 2 was no more closer to 3 than it was to 30.

Pythagorus also didn't know about algebra (it thus couldn't always 'solve' for a number in the same way we can)

4. [3] (Presentations) Which origami presented last week did you enjoy the most? Why?

① ②

clear base ①

5. [2] (Lang) What is Lang's 'definition' of an origami base.

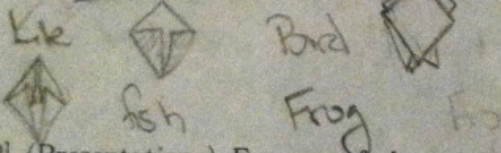
tree/clear ①
idea ①

"A base is a regular geometric shape that has a structure similar to that of the subject" pg 53

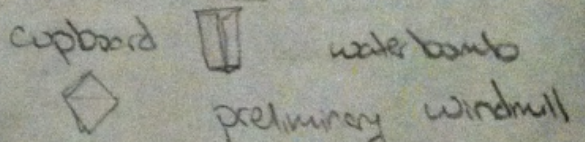
In my own words: A base is a state in an origami pattern when all the important 'limbs' of the subject have dedicated paper 'flaps'.

(a) [3] (Lang) Name three ('classic' or 'other standard') bases that Lang introduces.

traditional bases



other bases



(b) [2] (Presentations) For one of the origami pieces presented last week, identify which base was used.

Penguin used the fish base

Samurai hat didn't use a base listed above?

Crane used the bird base (also preliminary)

Lily used the frog base (also preliminary)

Balloon used the water bomb base

Frog used the frog base (also preliminary)