Math 206 - Quiz 7

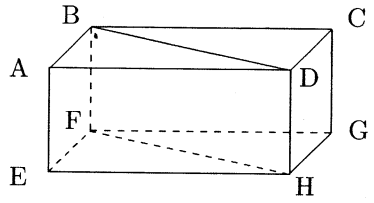
April 9, 2014

Name key

Score _____

Show all work to receive full credit. Supply explanations when necessary.

1. (2 points) Refer to the following three-dimensional figure. Be sure to use correct notation for your answers below.



(a) Find a pair of skew lines or explain why it is not possible.

$\overleftrightarrow{AB}$ AND $\overleftrightarrow{DH}$ DO NOT SHARE A PLANE

(b) Find three concurrent lines or explain why it is not possible.

$\overleftrightarrow{AB}$, $\overleftrightarrow{AE}$, AND $\overleftrightarrow{AD}$ ALL SHARE POINT A

(c) Find three points that are not coplanar or explain why it is not possible.

IT IS IMPOSSIBLE TO FIND 3 NON-COPLANAR POINTS.

(d) Find a pair of adjacent angles or explain why it is not possible.

$\angle EFH$ AND $\angle GFH$ HAVE NONOVERLAPPING INTERIORS AND SHARE $\overrightarrow{FH}$

2. (1 point) What kind of figure is

(a) both a rectangle and a kite?

IT MUST BE A SQUARE.

(b) both a kite and a parallelogram?

IT MUST BE A RHOMBUS.

3. (2 points) An angle measures 26°12′15″. Find the measure of its complement. Write your answer in decimal form.

$$\begin{array}{r} 89^\circ\ 59'\ 60'' \\ 26^\circ\ 12'\ 15'' \\ \hline 63^\circ\ 47'\ 45'' \end{array}$$

$$\frac{47'}{1}\cdot\frac{1^\circ}{60'} = 0.78\overline{3}^\circ$$

$$\frac{45''}{1}\cdot\frac{1^\circ}{3600''} = 0.0125^\circ$$

SAME AS $63.79583\overline{3}^\circ \approx 63.79583^\circ$