WEDNESDAY, AUGUST 22, 2012

TISK Problems

1) Simplify: $\frac{14}{\sqrt{7}}$

2) Simplify: $\frac{8x+24}{16}$

3) Factor completely: $-24x + 48x^2 + 3$

No Mental Math Today

Homework:
p. 81-82 #42-50 even

HOMEWORK CHECK

20) Hypothesis: You don't know where you are going.
Conclusion: You will probably end up somewhere else.

22) Hypothesis: You are an NBA basketball player.
Conclusion: You are at least 5'2" tall.

24) Hypothesis: You are an adult.
Conclusion: You are at least 21 years old.

26) If you are a champion then you are afraid of losing.

28) If a triangle is equiangular then it is equilateral.

30) If two lines are perpendicular then they form right angles.

32) Right angles are acute angles.

34) A cardinal is a dog.

HOMEWORK CHECK

36) If it is a square then it is a quadrilateral.
<u>Converse</u>: If it is a quadrilateral then it is a square. False; a trapezoid is a quadrilateral but is not a square.

<u>Inverse</u>: If it is not a square then it is not a quadrilateral. False; a trapezoid is not a square but it is a quadrilateral.

<u>Contrapositive</u>: If it is not a quadrilateral then it is not a square. True.

38) <u>Converse</u>: If two adjacent angles are congruent, then their common side bisects the larger angle. True.

<u>Inverse</u>: If a ray does not bisect an angle, then the two angles formed are not congruent. True.

<u>Contrapositive</u>: If two adjacent angles are not congruent, then their common side does not bisect the larger angle. True.

40) If two angles are vertical then they are congruent.

<u>Converse</u>: If two angles are congruent then they are vertical. False; these two angles are congruent but not vertical.

<u>Inverse</u>: If two angles are not vertical then they are not congruent. False; these two angles are not vertical but are congruent.

<u>Contrapositive</u>: If two angles are not congruent, then they are not vertical. True.
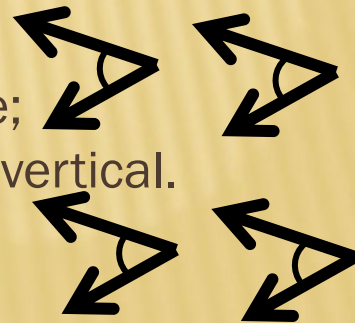
§2.2 CONTINUES

* 6 Postulates About Lines & Planes
  * Through any two points there is exactly one line.
  * Through any three points not on the same line, there is exactly one plane.
  * A line contains at least two points.
  * A plane contains at least three points not on the same line.
  * If two points lie in a plane, then the entire line containing those two points lies in that plane.
  * If two planes intersect, then their intersection is a line.

LINE POSTULATES ACTIVITY

* You will get into groups of 4 or 5 and get 2 white boards, 4-5 markers, and 2 erasers.

* For each of the 6 postulates you wrote down, write it in if-then form, then write its inverse, converse, and contrapositive.

* Then, decide as a group whether they are valid.

* You will have about 15 minutes to do so.

* Questions?

STOP!

- Time to share!
- I will call on a randomly selected student to tell us what your group came up with for one of the 6 postulates.
  - When called on, read each of your group's statements then tell us whether the group felt it was true or false and why.

MORE EXAMPLES

Determine whether the given statement is true or false.
State the postulate you would use to defend your answer.

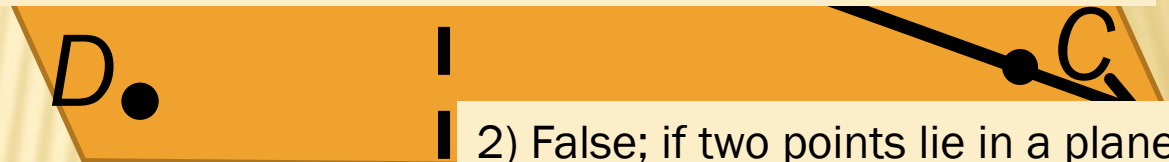A, B, and E lie in plane $\mathcal{N}$.

$\overleftrightarrow{BC}$ does not lie in plane $\mathcal{N}$.

A, B, C and E are coplanar.

A, B, and D are collinear.
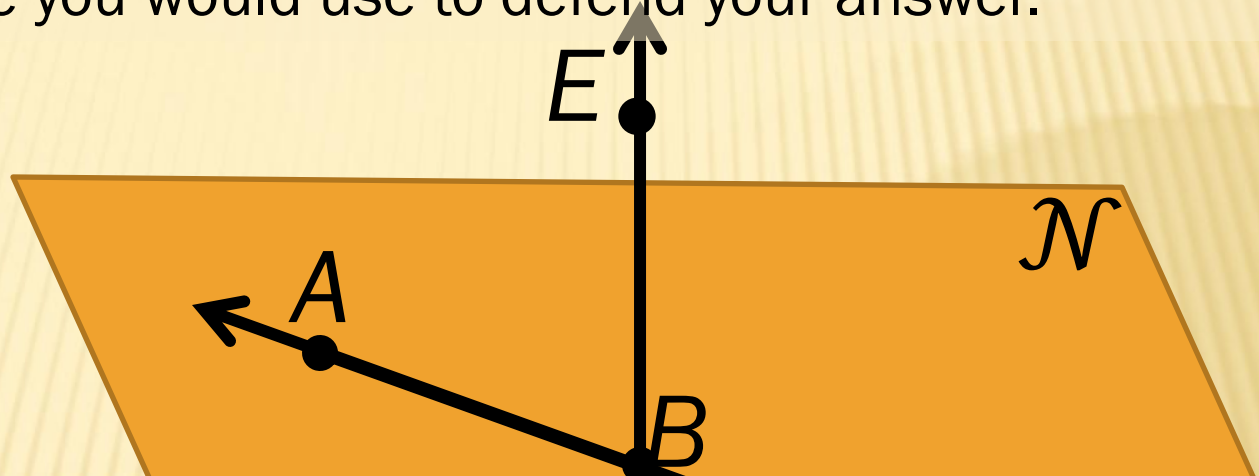
4) False; through any two points there is exactly one line, therefore there cannot be a different line that contains A and B as well as D.

1) False, $\overleftrightarrow{EB}$ is not contained in plane $\mathcal{N}$; only point B on that line is, so all three points are not contained in the plane.

2) False; if two points lie in a plane, then the entire line containing those two points lies in that plane.

3) True; through any three points **not on the same line**, there is exactly one plane.