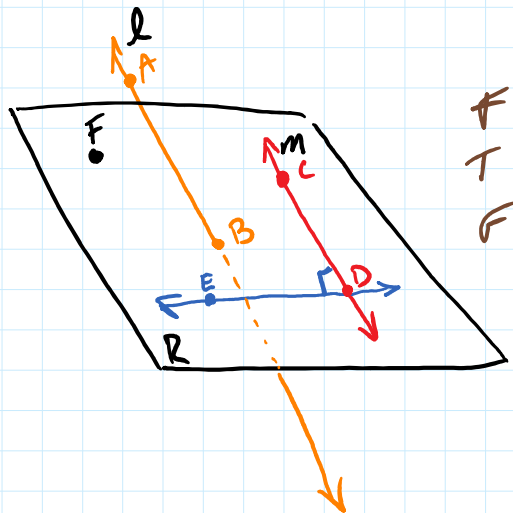


Test Review!



F
T
F

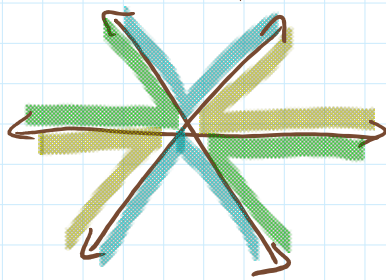
Use the diagram to determine whether the statement is true or false.

1. Points F, C, and E are colinear.
2. $\angle CDE$ is a right angle.
3. l intersects plane R at point A.

(C)

Determine whether the conditional statement is true or false. If false, give a counter example.

3 intersecting lines form 2 pairs of vertical angles.



False

②

Write the converse, inverse and the contrapositive of each statement. Then decide if each statement is true or false

$P \rightarrow Q$
 $Q \rightarrow P$
 $\sim P \rightarrow \sim Q$
 $\sim Q \rightarrow \sim P$

- T If it is August, then it is Summer.
- F If it is Summer, then it is Aug.
- F If it is not Aug, then it is not summer.
- T If it is not Summer, then it is not Aug.

③

Decide whether inductive reasoning or deductive reasoning is used to reach the conclusion.

Adding 2 consecutive numbers will always produce a number larger than either of the original numbers.

$$1+2=3$$

$$2+3=5$$

$$10+11=21$$

Induction Reasoning

$$-2 + -1 = -3$$

②

Use the Law of Syllogism to write a new conditional statement that follows from the pair of true statements (where possible).

If a shape has 3 sides, then it's a triangle.

If a shape is a triangle, then it has 3 angles.

If a shape has 3 sides, then it has 3 angles.

If you drive a car, then you have a license.

If you drive a car, then you fill the car with gas.

Not Possible (2 "this", no "if's")

②

Solve the equation. Justify each step.

$$3x + 3 = 9(x - 1)$$

$$3x + 3 = 9x - 9$$

$$-3x \quad -3x$$

$$3 = 6x - 9$$

$$+9 \quad +9$$

$$\frac{12}{6} = \frac{6x}{6}$$

$$2 = x$$

~~Given~~

Distributive POE

Subtraction POE

Simplify

Addition POE

Simplify

Division POE

simplify

①

Identify the property that justifies the statement.

$$\text{If } m\angle 1 = m\angle 2 \text{ then } m\angle 2 = m\angle 1$$

Symmetric POE

$$\overline{AB} \cong \overline{CD} \text{ H. } \overline{CD} \cong \overline{AB}$$

Symmetric POC

rat.

$$a = a$$

$$a = a$$

symm.

$$x = c$$

$$c = x$$

trans

$$x = c$$

$$c = y$$

$$x = y$$

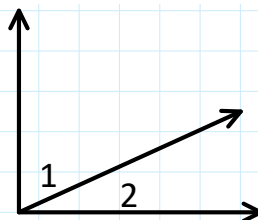
③

Write a two column proof.

Given: $\angle 1$ and $\angle 2$ are complementary.

$m\angle 1 = 75^\circ$

Prove: $m\angle 2 = 15^\circ$



$\angle 1$ and $\angle 2$ are complementary

$m\angle 1 = 75^\circ$

$m\angle 1 + m\angle 2 = 90^\circ$

$75^\circ + m\angle 2 = 90^\circ$

$-75^\circ \quad -75^\circ$

$m\angle 2 = 15^\circ$

given

given

Def. of Comp. \angle s

Substitution POE

Subtraction POE

simplify

20 questions

Good Luck!
