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28.	Subtraction Proof of Equality
27.	Subtraction Proof of Equality
26.	Segment Addition Postulate
25.	Substitution Proof of Equality
24.	Definition of Congruent Segments
23.	GIVEN
22.	Subtraction Proof of Equality
21.	Substitution Property of Equality
20.	Segment Addition Postulate
19.	GIVEN

Statements	$AC = 13, BC = 3$
	$AC = AB + BC$
	$13 = AB + 3$
	$AB = 10$
	$AB \cong FG, AC \cong EG$
	$AB = FG, AC = EG$
	$FG = 10, EG = 13$
	$EG = EF + FG$
	$13 = EF + 10$
	$EF = 3$



Reasons	
28.	See left.
27.	See left.
26.	See left.
25.	See left.
24.	See left.
23.	See left.
22.	See left.
21.	See left.
20.	See left.
19.	See left.
18.	See left.
17.	See left.

PROVE:  $EF = 3$   
 GIVEN:  $AB \cong FG$   
 $AC \cong EG$   
 Complete the proof.

17.  $6(x + 4) = 60$   
 Original equation  
 Distributive Property
18.  $\frac{1}{5}(-x - 8) = 45 \times \frac{1}{5}$   
 Original equation  
 Distributive Property
19. See left.
20. See left.
21. See left.
22. See left.
23. See left.
24. See left.
25. See left.
26. See left.
27. See left.
28. See left.

16. Solve the equation and write a reason for each step.

17.  $6(x + 4) = 60$   
 Original equation

18.  $\frac{1}{5}(-x - 8) = 45 \times \frac{1}{5}$   
 Original equation

19. See left.

20. See left.

21. See left.

22. See left.

23. See left.

24. See left.

25. See left.

26. See left.

27. See left.

28. See left.

15. If the light is on, then someone is home. The light is on.  
 never been in Pennsylvania.

16. The Liberty Bell is located in Philadelphia, Pennsylvania. Rob has

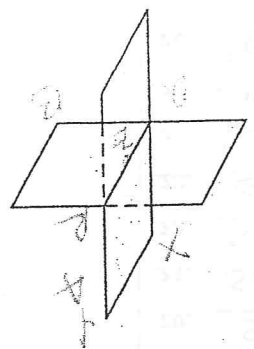
What conclusions can you make using the true statement?

Answers

3 Diagram

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11. Label the vertical plane as  $A$  and the horizontal plane as  $B$ .
12. Draw two points  $X$  and  $Y$  on the diagram so they lie in plane  $A$ , but not in plane  $B$ .
13. Draw point  $Z$  on the diagram so it lies in both plane  $A$  and plane  $B$ .
14. Plot points  $Q$  and  $R$  on the diagram so that  $\overline{QR}$  is the intersection of plane  $A$  and plane  $B$ .

Label the following planes and points appropriately

11. See left.
12. See left.
13. See left.
14. See left.

10. Rewrite the statements as a biconditional.  
If Chris is elected class president, then he will be elected class president.  
If Chris is elected class president, then he has the most votes.
9. If you are a band member, then you are a musician.
8. If you are not a band member, then you are not a musician.
7. If you are a musician, then you are a band member.
6. If you are not a musician, then you are not a band member.

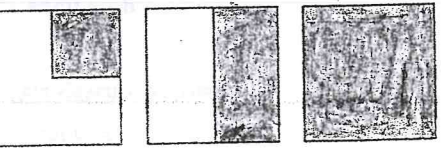
For the statement "Band members are musicians," determine if each statement is true or false.

5. Regular polygons always have an even number of sides.
  4. The value of  $x^2$  is always greater than the value of  $x$ . **FIND X THAT DISPROVES THIS**
  3. All intersecting planes form right angles.
- Find a counterexample to disprove the conjecture.

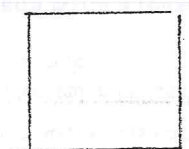
10. See left.
9. See left.
8. See left.
7. See left.
6. See left.

2. Write the next three numbers in the pattern.  
0, 1, 3, 6, ...

5. See middle Below
4. See left. Below
3. See left. Below
2. See left.
1. See left.



1. Sketch the fourth figure in the pattern below.



CHAPTER 2 Chapter Test B For use after Chapter 2

#14-28 COMPLETED PRE-TEST

Name \_\_\_\_\_ Date \_\_\_\_\_

Answers