

Homework Page 116: 4-6 all

4. **Developing Proof** Fill in the reasons for this algebraic proof.

Given: $5x + 1 = 21$

Prove: $x = 4$

Statements	Reasons
1) $5x + 1 = 21$	1) a. ?
2) $5x = 20$	2) b. ?
3) $x = 4$	3) c. ?

Algebra Fill in the reason that justifies each step.

5. $\frac{1}{2}x - 5 = 10$ Given
 $2(\frac{1}{2}x - 5) = 20$ a. ?
 $x - 10 = 20$ b. ?
 $x = 30$ c. ?

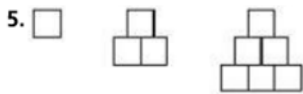
6. $5(x + 3) = -4$ Given
 $5x + 15 = -4$ a. ?
 $5x = -19$ b. ?
 $x = -\frac{19}{5}$ c. ?

Homework Page 105: 1-15 all

Use inductive reasoning to describe the pattern of each sequence. Then find the next two terms.

- 1, 12, 123, 1234, ...
- 3, 4.5, 6.75, 10.125, ...
- 2, 3, 5, 7, 11, 13, ...

Draw the next figure in each sequence.



Find a counterexample for the conjecture.

- Three coplanar lines always make a triangle.
- All balls are spheres.
- When it rains, it pours.

Identify the hypothesis and the conclusion of the conditional statements.

- If the traffic light is red, then you must stop.
- If $x > 5$, then $x^2 > 25$.
- If you leave your house, then you must lock the door.

Rewrite the statements as conditional statements.

- Roses are beautiful flowers.
- Apples grow on trees.
- Quadrilaterals have four sides.
- The world's largest trees are giant sequoias.