

Practice

Inductive Reasoning and Conjecturing

Determine if the conjecture is true or false based on the given information. Explain your answer and give a counterexample for any false conjecture.

1. Given: noncollinear points A , B , C , and D
Conjecture: A , B , C , and D are coplanar.

2. Given: A , B , C , and D are collinear points.
Conjecture: $AB + BC + CD = AD$

3. Given: $\angle A$ and $\angle B$ are right angles.
Conjecture: $\angle A \cong \angle B$

4. Given: Point C between H and V .
Conjecture: $\angle HCV$ is a straight angle.

Write a conjecture based on the given information. If appropriate, draw a figure to illustrate your conjecture.

5. \overline{AB} , \overline{CD} , and \overline{EF} intersect at X .

6. $\angle MNO$ and $\angle PNO$ are adjacent angles.

7. $A(3, 1)$, $B(3, -5)$, $C(3, 7)$.

8. A , B , C , and D are coplanar points.