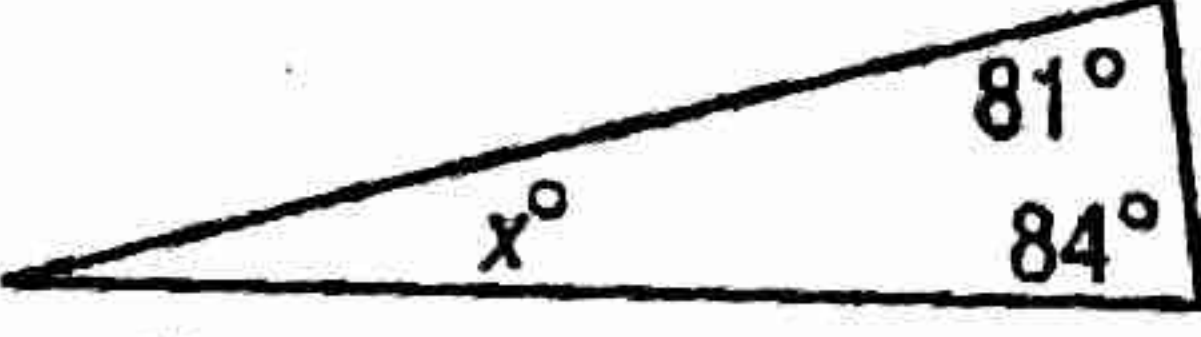
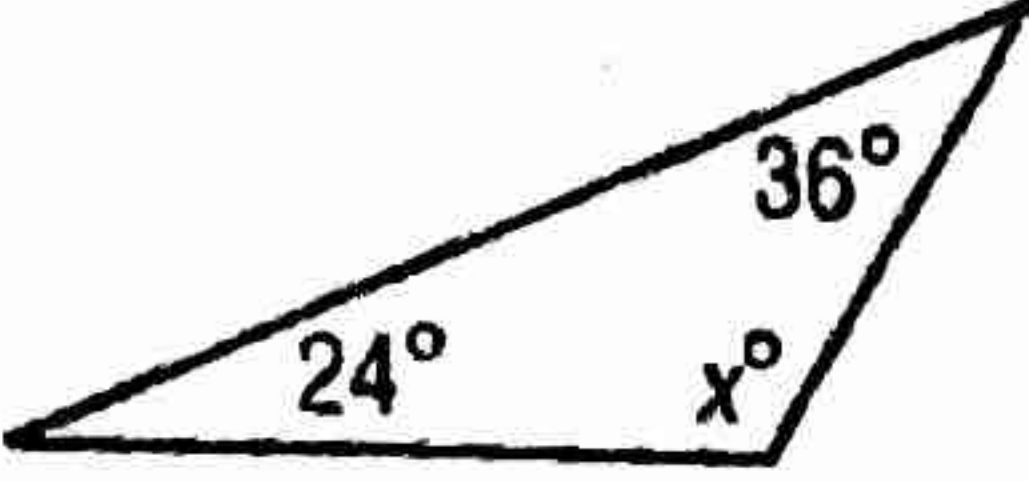


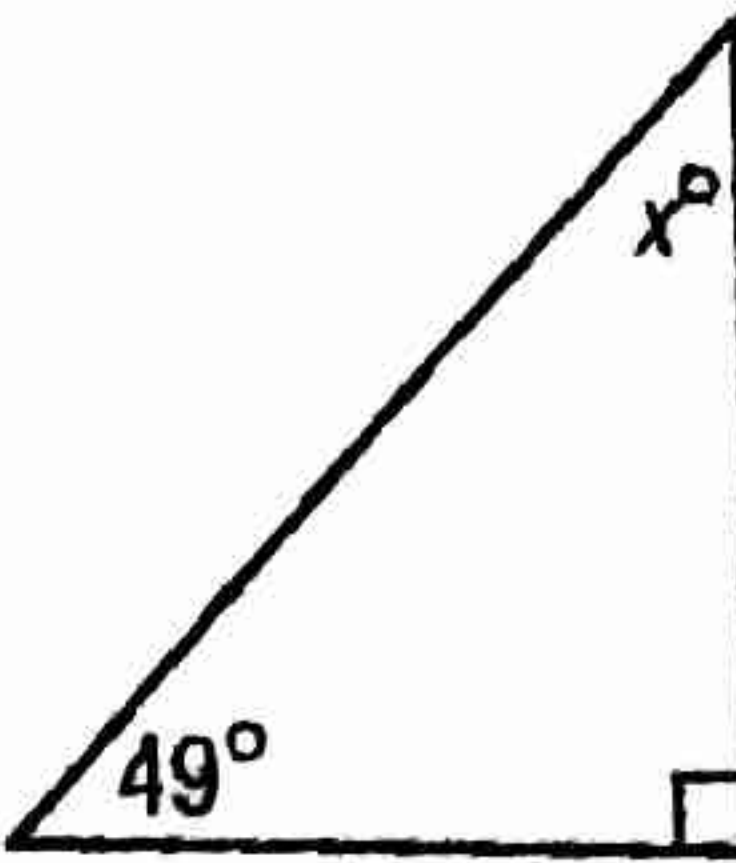
Lesson 3 Skills Practice

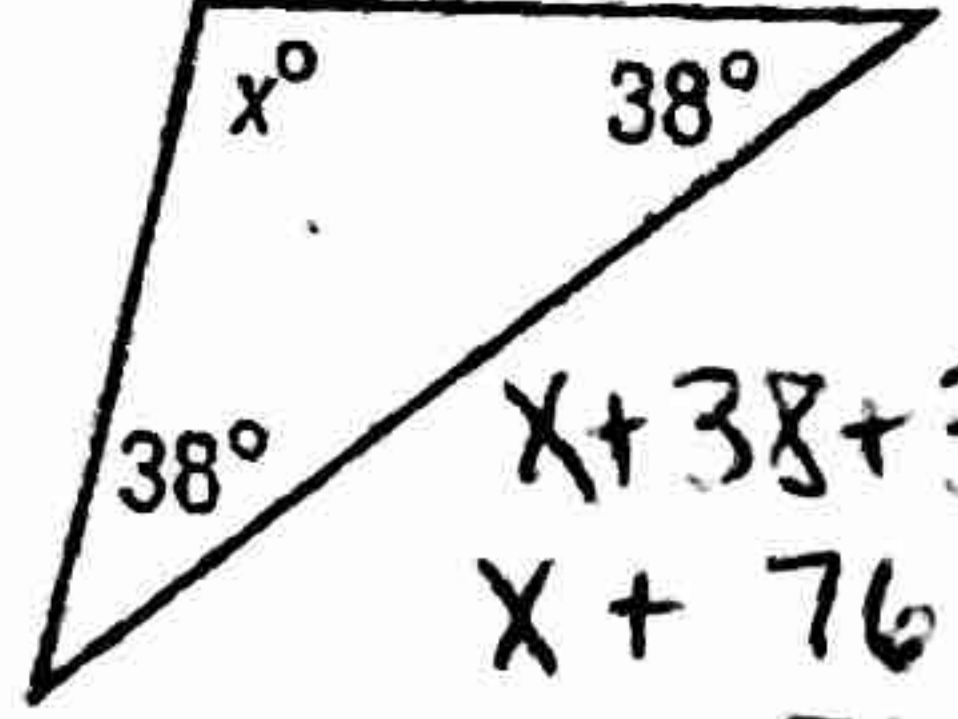
Angles of Triangles

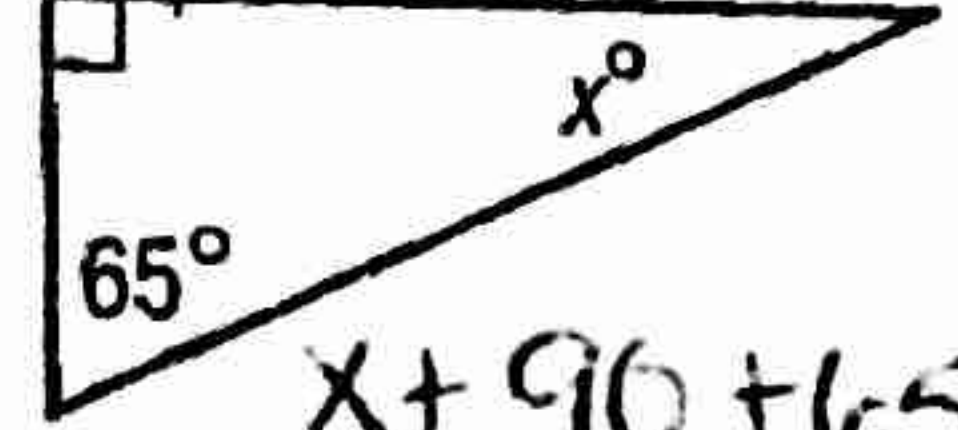
Find the value of x in each triangle with the given angle measures.

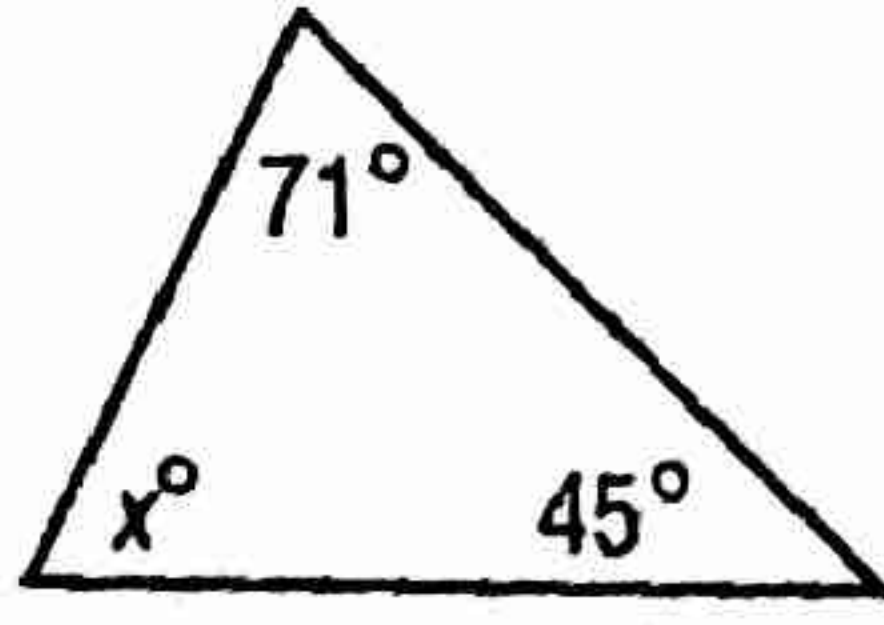
1. 
 $81 + 84 + x = 180$
 $165 + x = 180$
 $x = 15^\circ$

2. 
 $24 + 36 + x = 180$
 $60 + x = 180$
 $-60 \quad -60$
 $x = 120^\circ$

3. 
 $x + 49 + 90 = 180^\circ$
 $x + 139 = 180$
 $x = 41^\circ$

4. 
 $x + 38 + 38 = 180$
 $x + 76 = 180$
 $-76 \quad -76$
 $x = 104^\circ$

5. 
 $x + 90 + 65 = 180$
 $x + 155 = 180$
 $-155 \quad -155$
 $x = 25^\circ$

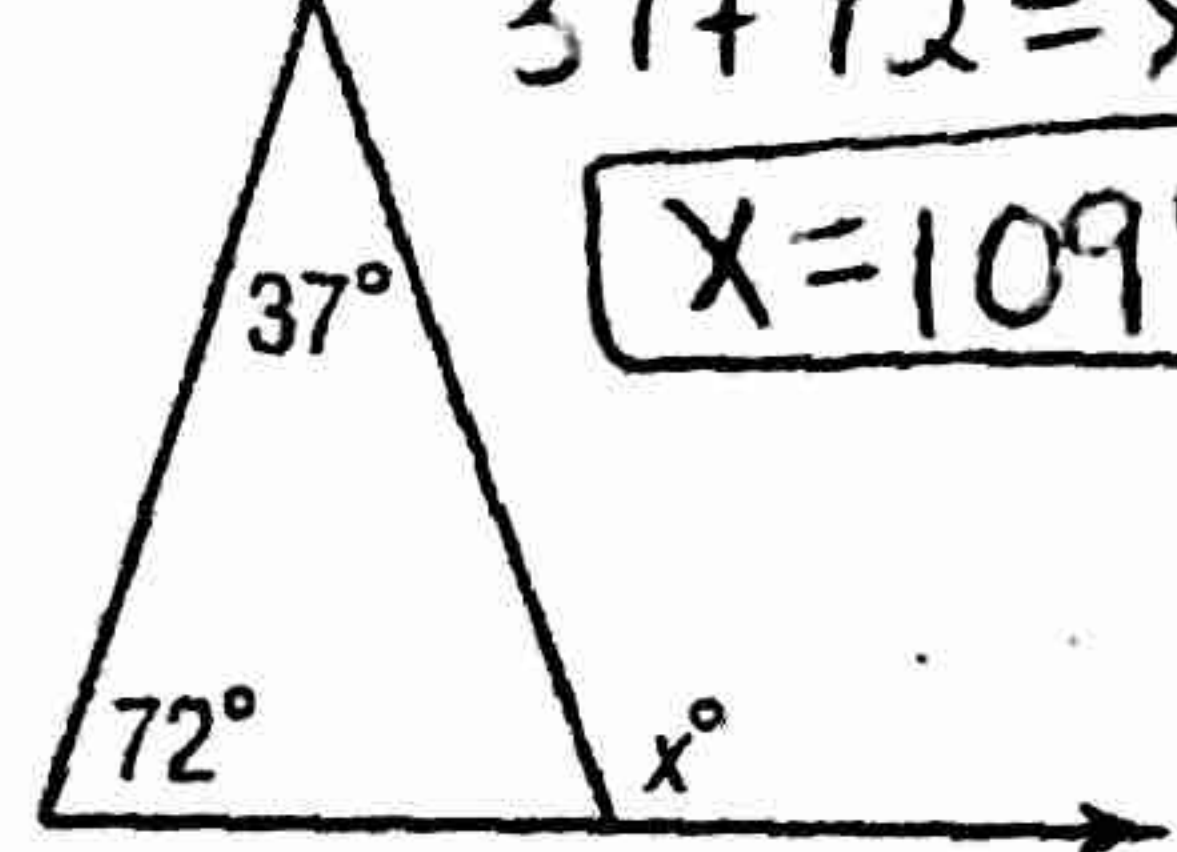
6. 
 $x + 71 + 45 = 180^\circ$
 $x + 116 = 180$
 $-116 \quad -116$
 $x = 64^\circ$

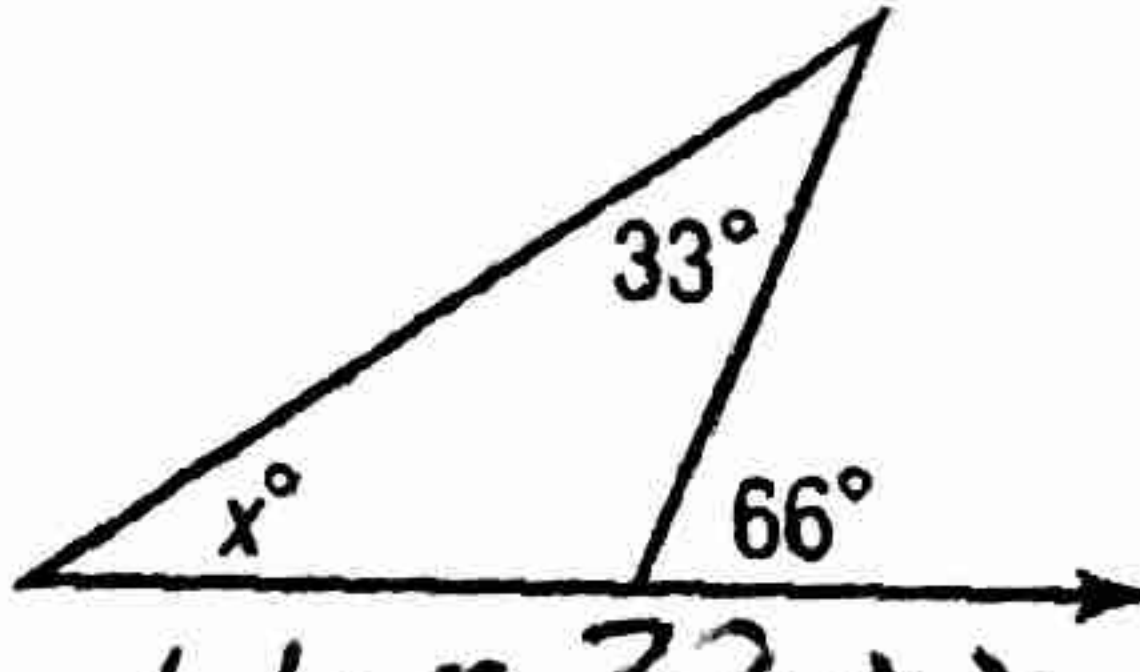
7. $57^\circ, 51^\circ, x^\circ$
 $57 + 51 + x = 180$
 $108 + x = 180$
 $x = 72^\circ$

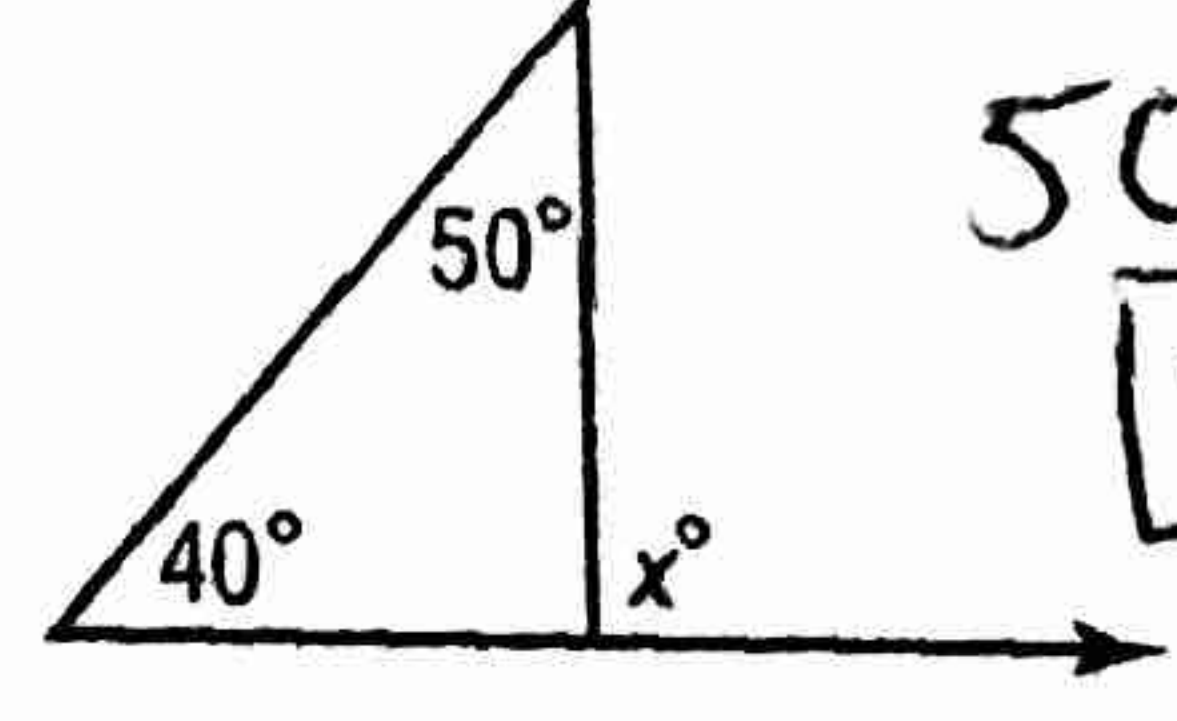
8. $x^\circ, 126^\circ, 22^\circ$
 $x + 126 + 22 = 180$
 $x + 148 = 180$
 $x = 32^\circ$

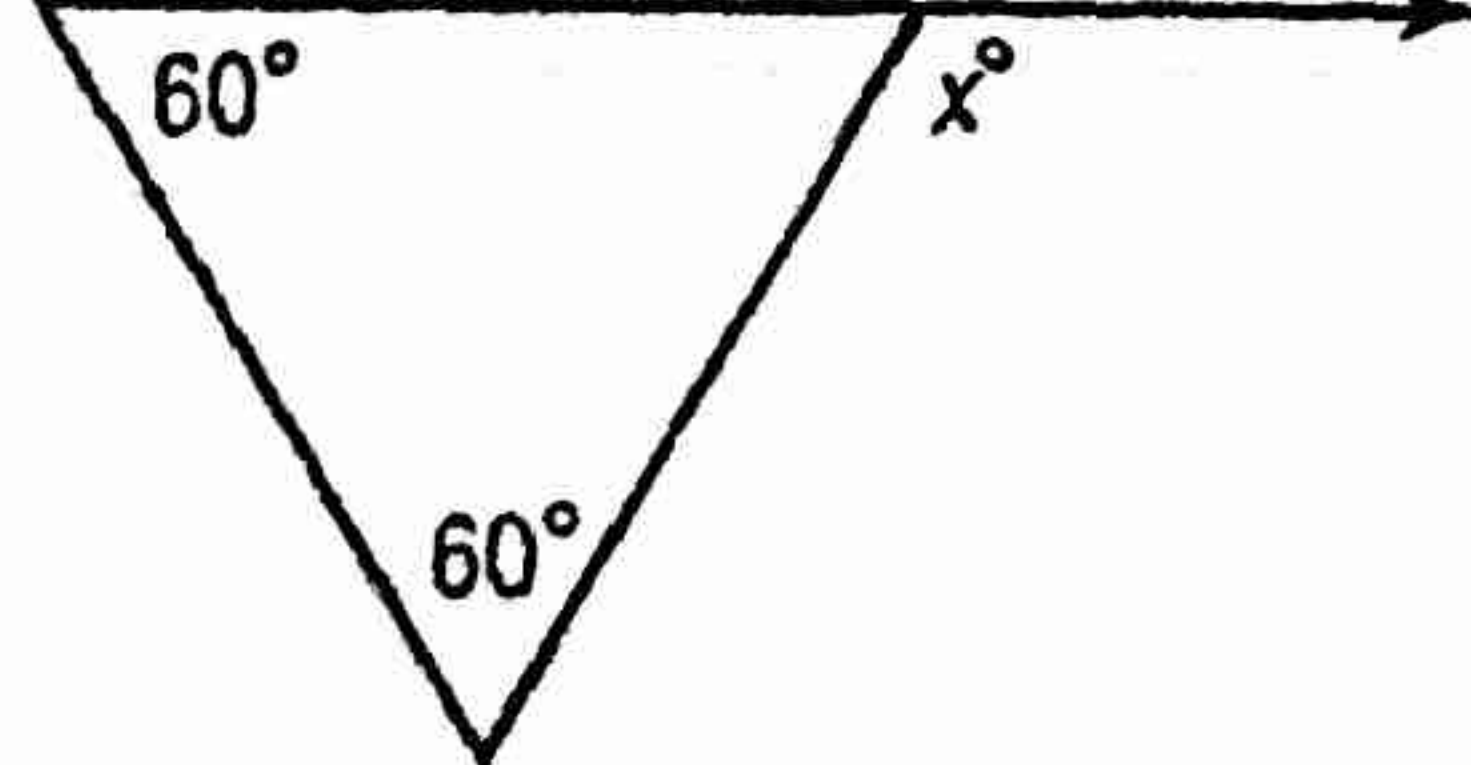
9. $90^\circ, x^\circ, 50^\circ$
 $90 + 50 + x = 180$
 $140 + x = 180$
 $x = 40^\circ$

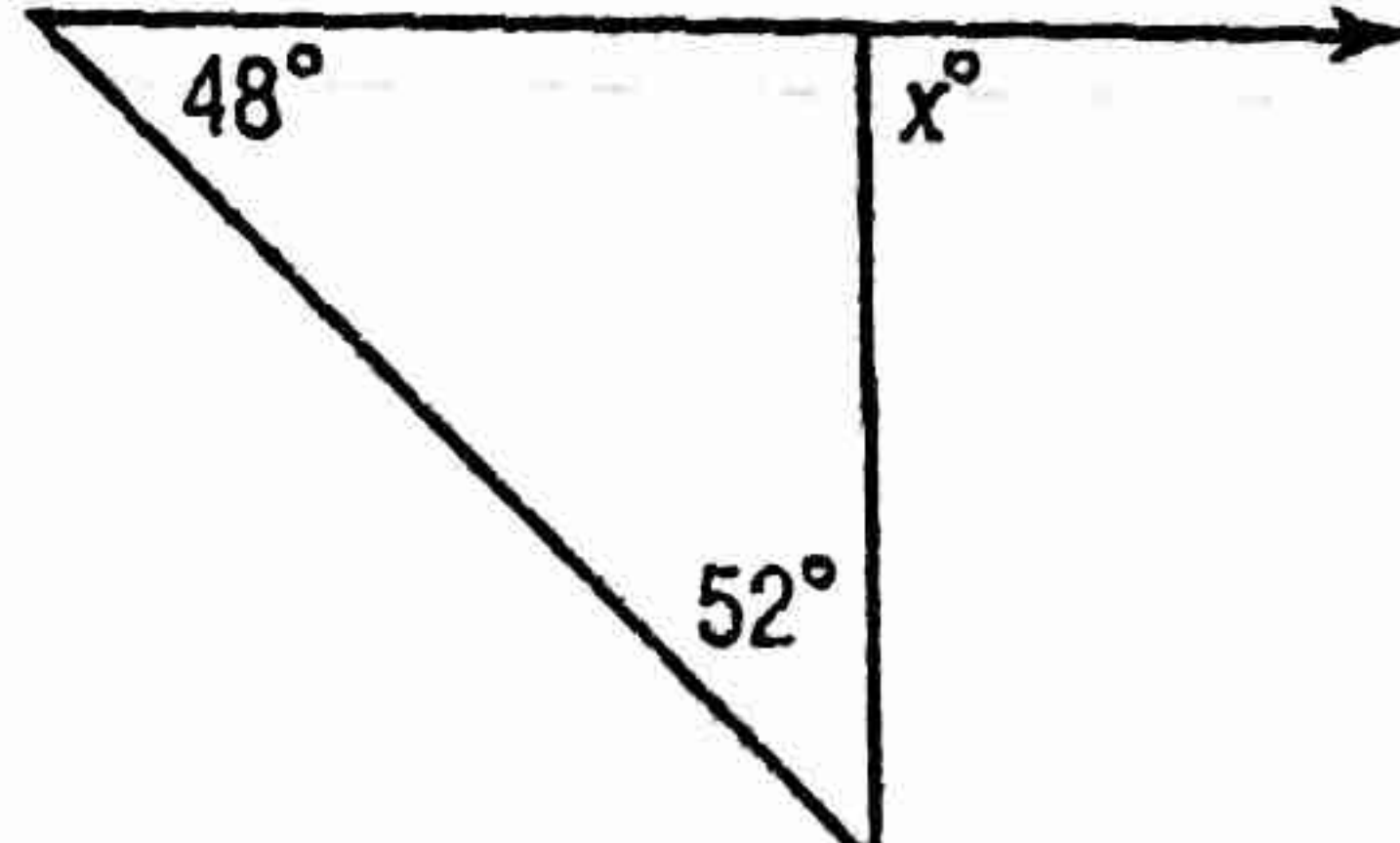
Find the value of x in each triangle.


10. 
 $37 + 72 = x$
 $x = 109^\circ$

11. 
 $66 = 33 + x$
 $33^\circ = x$

12. 
 $50 + 40 = x$
 $90^\circ = x$

13. 
 $x = 60 + 60$
 $x = 120^\circ$

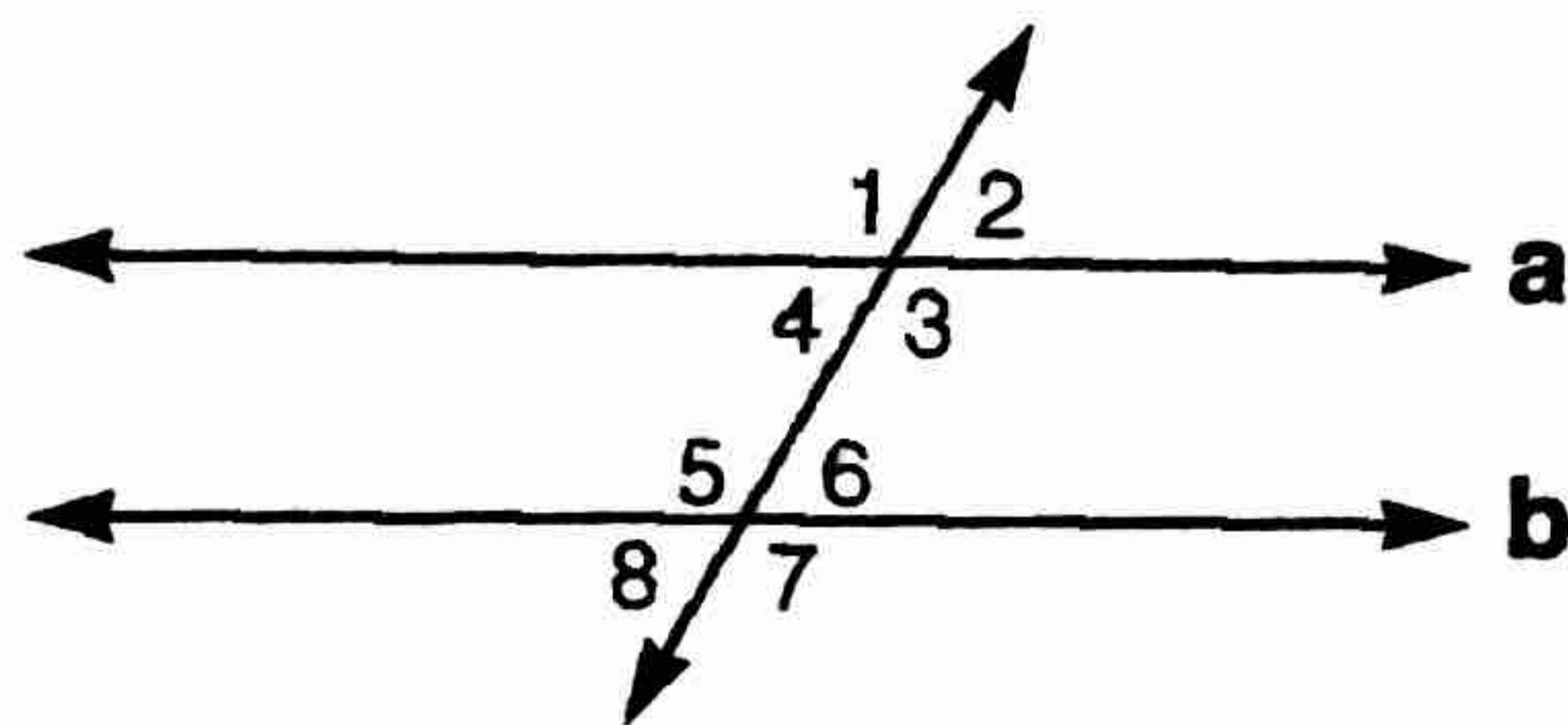
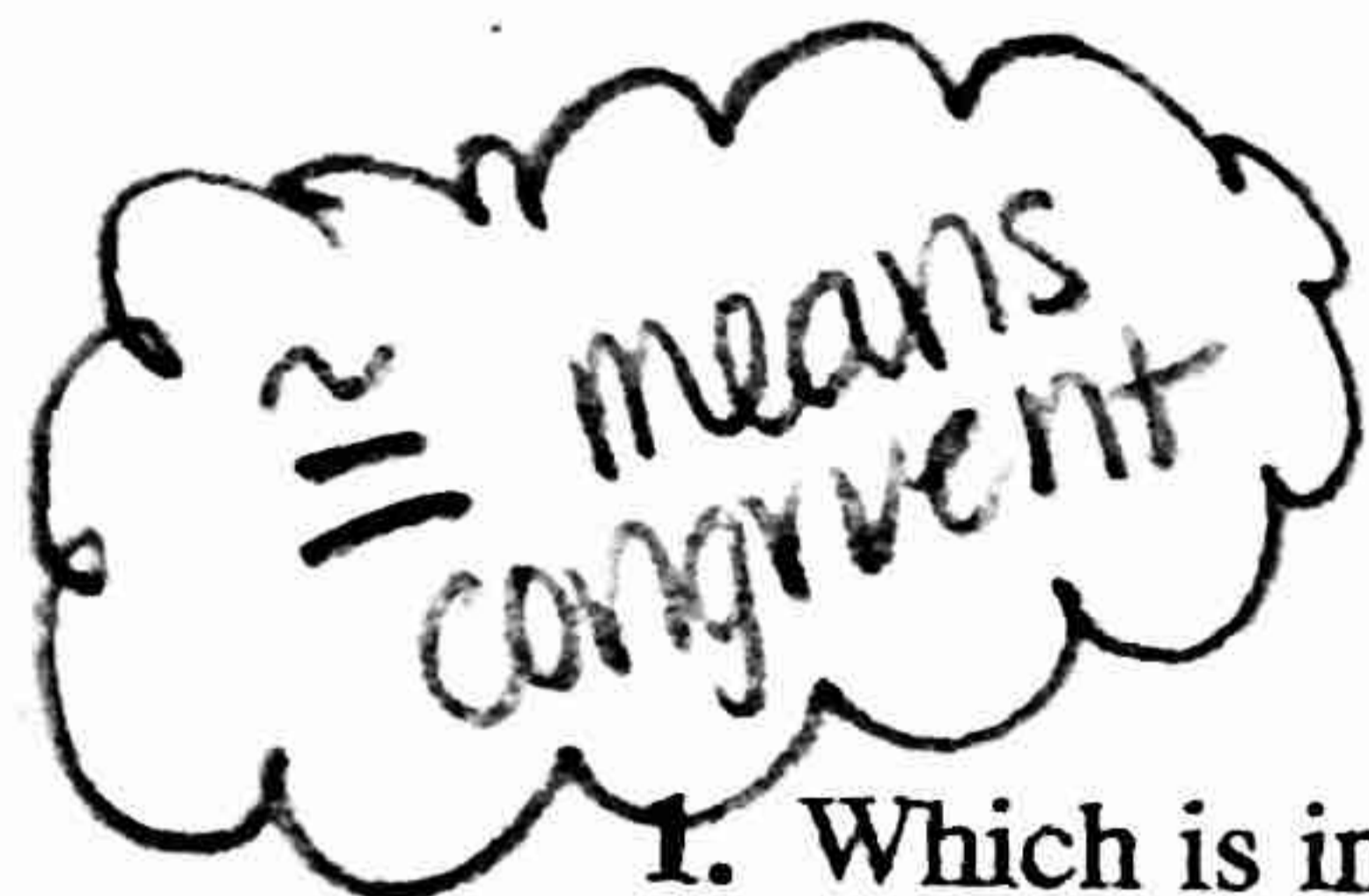
14. 
 $x = 52 + 48$
 $x = 100^\circ$

15. 
 $x = 121 + 40$
 $x = 161^\circ$



The Square Team

Directions: There are three correct answers for each problem. Circle the single **INCORRECT** statement. The letters next to the incorrect answers will provide the solution to the riddle when they are placed on the blank lines, which match the problem numbers, below.



$a \parallel b$

- Which is incorrect?
 - A) $\angle 1 \cong \angle 3$ ✓ vertical
 - B) $\angle 2 \cong \angle 4$ ✓ vertical
 - C) $\angle 1 \cong \angle 8$ ✗ same side ext.
 - D) $\angle 1 \cong \angle 5$ ✓ corresponding
- Which is incorrect?
 - A) $\angle 2 \cong \angle 6$ ✓ corresponding
 - B) $\angle 3 \cong \angle 6$ ✗ same side int.
 - C) $\angle 5 \cong \angle 7$ ✓ vertical
 - D) $\angle 6$ is supplementary to $\angle 7$ ✓
- Which is incorrect?
 - L) $\angle 8$ is supplementary to $\angle 7$ ✓
 - M) $\angle 2 \cong \angle 8$ ✓ alt ext
 - N) $\angle 6 \cong \angle 7$ ✗ supplementary
 - T) $\angle 3$ is supplementary to $\angle 4$ ✓
- Which is incorrect?
 - R) $\angle 2 \cong \angle 7$ ✗ same side ext.
 - S) $\angle 3 \cong \angle 7$ ✓ corresponding
 - N) $\angle 4 \cong \angle 8$ ✓ corresponding
 - T) $\angle 5$ is supplementary to $\angle 6$ ✓
- If $\angle 1 = 120^\circ$, then ...
 - R) $\angle 7 = 120^\circ$ ✓ alt ext.
 - S) $\angle 6 = 120^\circ$ ✗ no relationship
 - T) $\angle 2 = 60^\circ$ ✓ supplementary
 - N) $\angle 4 = 60^\circ$ ✓ alt int
- If $\angle 6 = 48^\circ$, then ...
 - R) $\angle 5 = 132^\circ$ ✓ supplementary
 - S) $\angle 2 = 48^\circ$ ✓ corresponding
 - T) $\angle 3 = 48^\circ$ ✗ same side int
 - N) $\angle 4 = 48^\circ$ ✓ alt int.
- If $\angle 4 = 39^\circ$, then ...
 - R) $\angle 6 = 141^\circ$ ✗ alt int
 - S) $\angle 5 = 141^\circ$ ✓ supplementary
 - T) $\angle 1$ is supplementary to $\angle 4$ ✓
 - N) $\angle 2$ is vertical to $\angle 4$ ✓
- Which is incorrect?
 - M) $\angle 5$ is vertical to $\angle 7$ ✓
 - D) $\angle 1$ is vertical to $\angle 3$ ✓
 - Y) $\angle 8$ is complementary to $\angle 5$ ✗ supplementary
 - E) $\angle 6$ is supplementary to $\angle 7$ ✓
- Which is incorrect?
 - A) $\angle 6$ and $\angle 8$ are vertical angles ✓
 - E) $\angle 3$ and $\angle 5$ are alternate interior angles ✓
 - I) $\angle 5$ and $\angle 6$ are vertical angles ✗ supplementary
 - O) $\angle 4$ and $\angle 6$ are alternate interior angles ✓
- Which is incorrect?
 - E) $\angle 3$ and $\angle 7$ are corresponding angles ✓
 - F) $\angle 3$ and $\angle 6$ are alternate interior angles ✗ same side int
 - G) $\angle 5$ and $\angle 1$ are corresponding angles ✓
 - H) $\angle 5 + \angle 2 = 180^\circ$ ✓

Question: What professional football team is the square of a prime number?

F O R T Y N I N E R S
 10 1 4 6 8 3 9 3 2 7 5

Focus: Identifying angle relationships when parallel lines are cut by a transversal