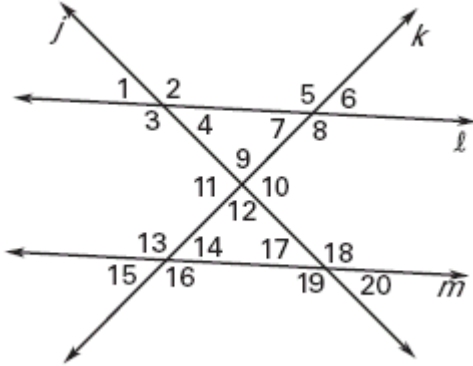


Challenge Practice
Parallel Lines and Transversals

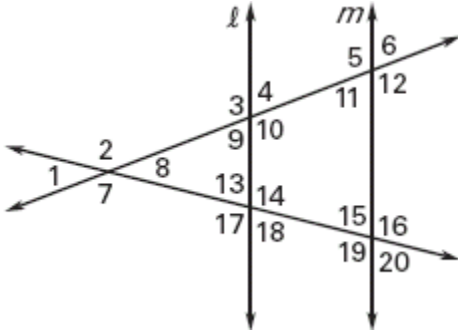
Geometry

In Exercises 1–3, use the given information to find the measures of the angles in the diagram.

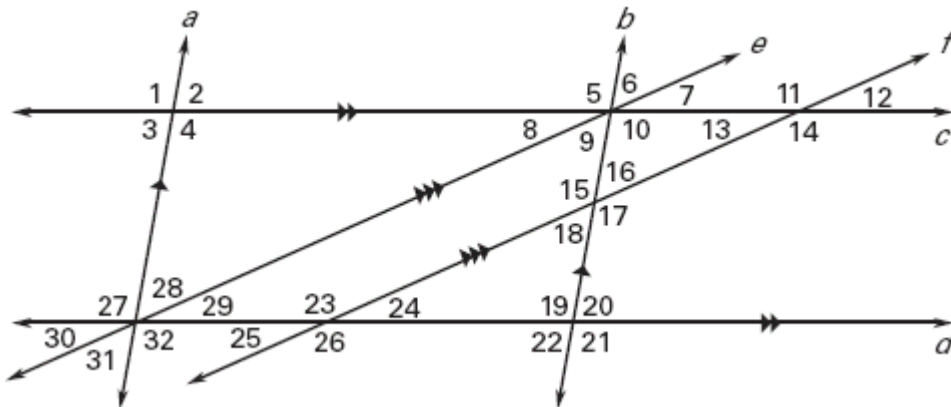
1. **GIVEN:** $l \parallel m, j \perp k, m\angle 1 = 42^\circ$



2. **GIVEN:** $l \parallel m, m\angle 1 = 35^\circ$, and $m\angle 12 = 111^\circ$



3. **GIVEN:** $a \parallel b, c \parallel d, e \parallel f, m\angle 7 = 24^\circ$, and $m\angle 20 = 80^\circ$



4. Draw a four-sided figure in which $\overline{AB} \parallel \overline{DC}$ and $\overline{AD} \parallel \overline{BC}$. Prove $\angle A \cong \angle C$.

5. In the diagram, $m \parallel n$. Find the value of x . *Explain* how you obtained your answer

