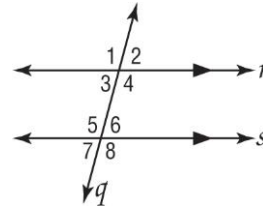


# 3-2 Skills Practice

## Angles and Parallel Lines

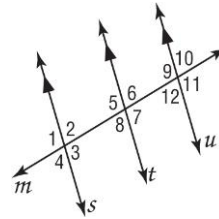
In the figure,  $m\angle 2 = 70$ . Find the measure of each angle.

- |               |               |
|---------------|---------------|
| 1. $\angle 3$ | 2. $\angle 5$ |
| 3. $\angle 8$ | 4. $\angle 1$ |
| 5. $\angle 4$ | 6. $\angle 6$ |



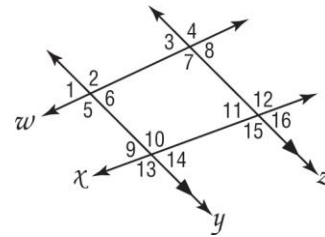
In the figure,  $m\angle 7 = 100$ . Find the measure of each angle.

- |                |                 |
|----------------|-----------------|
| 7. $\angle 9$  | 8. $\angle 6$   |
| 9. $\angle 8$  | 10. $\angle 2$  |
| 11. $\angle 5$ | 12. $\angle 11$ |

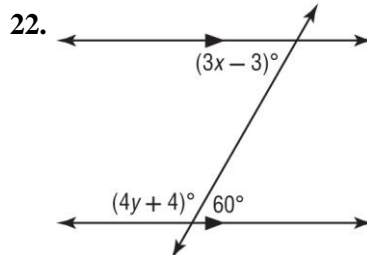
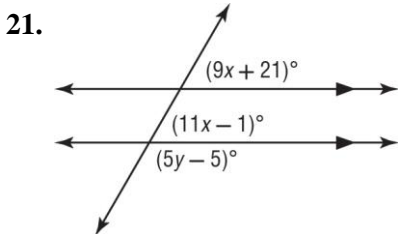
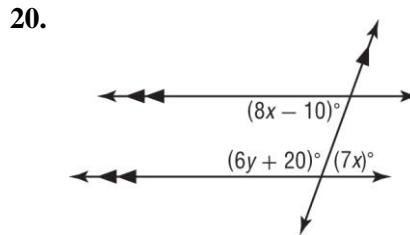
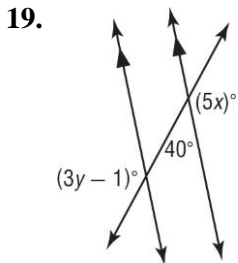


In the figure,  $m\angle 3 = 75$  and  $m\angle 10 = 105$ . Find the measure of each angle.

- |                 |                 |
|-----------------|-----------------|
| 13. $\angle 2$  | 14. $\angle 5$  |
| 15. $\angle 7$  | 16. $\angle 15$ |
| 17. $\angle 14$ | 18. $\angle 9$  |



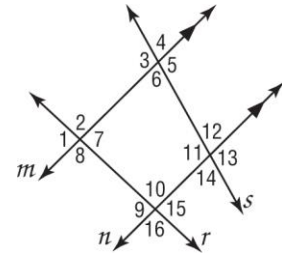
Find the value of the variable(s) in each figure. Explain your reasoning.



# 3-2 Practice

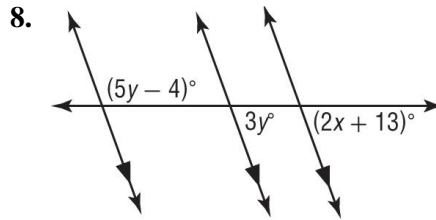
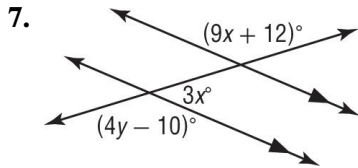
## Angles and Parallel Lines

In the figure,  $m\angle 2 = 92$  and  $m\angle 12 = 74$ . Find the measure of each angle. Tell which postulate(s) or theorem(s) you used.

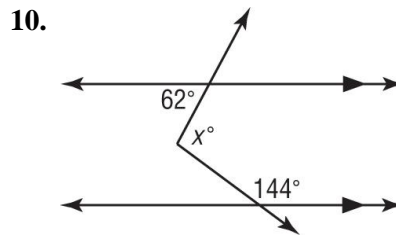
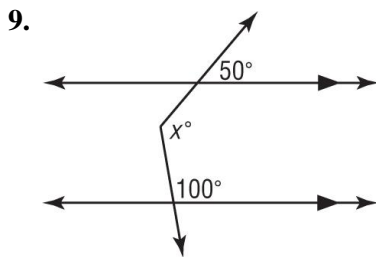


- |                |                |
|----------------|----------------|
| 1. $\angle 10$ | 2. $\angle 8$  |
| 3. $\angle 9$  | 4. $\angle 5$  |
| 5. $\angle 11$ | 6. $\angle 13$ |

Find the value of the variable(s) in each figure. Explain your reasoning.



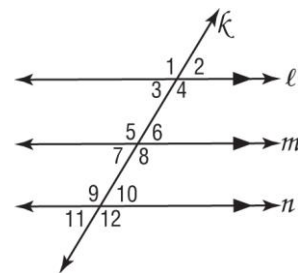
Find  $x$ . (*Hint: Draw an auxiliary line.*)



11. **PROOF** Write a paragraph proof of Theorem 3.3.

Given:  $\ell \parallel m, m \parallel n$

Prove:  $\angle 1 \cong \angle 12$



12. **FENCING** A diagonal brace strengthens the wire fence and prevents it from sagging. The brace makes a  $50^\circ$  angle with the wire as shown. Find the value of the variable.

