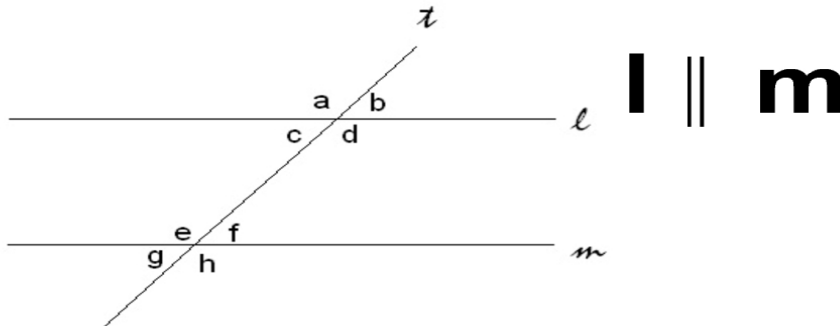


## Parallel Lines and Angle Sums - Worksheet



1.  $\angle d \cong \angle e$   
These angles are called \_\_\_\_\_ angles
2.  $\angle a \cong \angle e$   
These angles are called \_\_\_\_\_ angles.
3. Alternate interior angles form the capital letters \_\_\_\_\_ or \_\_\_\_\_ .
4. Corresponding angles form the capital letter \_\_\_\_\_ .
5. Interior angles form the capital letter \_\_\_\_\_ .
6. Parallel lines never \_\_\_\_\_ .
7. Line **t** is called a \_\_\_\_\_ .
8.  $\angle b + \angle h =$  \_\_\_\_\_  $^\circ$
9.  $\angle e + \angle c =$  \_\_\_\_\_  $^\circ$
10.  $\angle a \cong \angle$  \_\_\_\_\_  $\cong \angle$  \_\_\_\_\_  $\cong \angle$  \_\_\_\_\_

Use the diagram above as shown to answer the following questions:

- |   |  |
|---|--|
| <p>11. Given: <math>\angle a = 115^\circ</math></p> <p><math>\angle a =</math> _____ <math>^\circ</math>    <math>\angle e =</math> _____ <math>^\circ</math></p> <p><math>\angle b =</math> _____ <math>^\circ</math>    <math>\angle f =</math> _____ <math>^\circ</math></p> <p><math>\angle c =</math> _____ <math>^\circ</math>    <math>\angle g =</math> _____ <math>^\circ</math></p> <p><math>\angle d =</math> _____ <math>^\circ</math>    <math>\angle h =</math> _____ <math>^\circ</math></p> | <p>12. Given: <math>\angle b = x + 15^\circ</math>, <math>\angle h = 2x^\circ</math></p> <p><math>\angle a =</math> _____ <math>^\circ</math>    <math>\angle e =</math> _____ <math>^\circ</math></p> <p><math>\angle b =</math> _____ <math>^\circ</math>    <math>\angle f =</math> _____ <math>^\circ</math></p> <p><math>\angle c =</math> _____ <math>^\circ</math>    <math>\angle g =</math> _____ <math>^\circ</math></p> <p><math>\angle d =</math> _____ <math>^\circ</math>    <math>\angle h =</math> _____ <math>^\circ</math></p> |
|---|--|
13. Given:  $\angle c = 3x^\circ$ ,  $\angle h = x + 40^\circ$
- $\angle a =$  \_\_\_\_\_  $^\circ$      $\angle e =$  \_\_\_\_\_  $^\circ$
- $\angle b =$  \_\_\_\_\_  $^\circ$      $\angle f =$  \_\_\_\_\_  $^\circ$
- $\angle c =$  \_\_\_\_\_  $^\circ$      $\angle g =$  \_\_\_\_\_  $^\circ$
- $\angle d =$  \_\_\_\_\_  $^\circ$      $\angle h =$  \_\_\_\_\_  $^\circ$