|  |  |  |  |
| --- | --- | --- | --- |
| 1. Complete the sentences (a-d) using either **“congruent”** or **“supplementary”**   When parallel lines are cut by a transversal then, | | | 2. Use the diagram to answer questions a – d.  http://img.sparknotes.com/figures/C/cdafbce3d7fbcda5507c818a9e198ec0/transversal.gif |
| 1. Corresponding angles are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. | | |
| 1. Alternate Interior Angles are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. | | | a. *m*2 = 70°. Find the *m*6. |
| 1. Same Side Interior Angles are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. | | | 1. *m*3 = 5*x* and *m* 6 = 3*x* + 8. Find the value of *x* and the measure of 4 and 5. |
| 1. Alternate Exterior Angles are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. | | | 1. *m* 4 = 20*x* + 20 and *m*6 = 10*x* + 10. Find the value of *x*. |
| **Find each missing angle measure** | | | |
| 3. In triangle ABC the measure of angle A is 40° and the measure of angle B is 90°. **Find the measure of angle *F*.** | | 4.  C  A  x  x + 20    B  5x + 20  x = \_\_\_\_\_\_  m∠A = ­\_\_\_\_\_\_\_\_\_\_ m∠B = ­\_\_\_\_\_\_\_\_\_\_ m∠C = ­\_\_\_\_\_\_\_\_\_\_ | |
| 5.    x°  65°  50°  x= \_\_\_\_\_\_\_\_\_\_ | | 6.  45°    109°  y°  x°  x = \_\_\_\_\_\_\_\_\_\_ y = \_\_\_\_\_\_\_\_\_\_ | |
| 7. The measure of one angle of a triangle is twice the measure of a second angle. The measure of the third angle is 12 less than the sum of the other two. Find the measure of the angles of the triangle. | | | |
| 8. ∆ABC is similar to ∆DEF. Identify all corresponding angles and sides.  E  A  D  B  C  F | | | |
| ∠A corresponds to \_\_\_\_\_\_\_\_\_\_.  ∠B corresponds to \_\_\_\_\_\_\_\_\_\_.  ∠C corresponds to \_\_\_\_\_\_\_\_\_\_. | AB corresponds to \_\_\_\_\_\_\_\_\_\_.  BC corresponds to \_\_\_\_\_\_\_\_\_\_.  AC corresponds to \_\_\_\_\_\_\_\_\_\_. | | |

**Are the following figures similar?**

|  |  |
| --- | --- |
| 9.  **Explain by labeling AA, SAS, or SSS.**  7  7  9  9 | 10.  **Q**  **8**  **4**  **5**  **D**  **S**  **R**  **10**  **B**  **A**  **P**  **C** |

|  |  |
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| The following figures are similar. Solve for the designated side.  **5**  **8**  **2**  **y**  11. | Each figure shows a pair of similar triangles. Find each unknown length.    12.    30 30  x    y  20      45 |
| 13. Using the diagram below, name all the following pairs of angles.  http://img.sparknotes.com/figures/C/cdafbce3d7fbcda5507c818a9e198ec0/transversal.gif | Vertical angles? (4) |
| Corresponding angles? (4) |
| Which pairs of angles are linear pairs? (8) |
| Alternate interior angles? (2) |
| Alternate exterior angles? (2) |