**NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_DATE\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_PER.\_\_\_\_\_\_**

**5.1 – Classifying Triangles**

**Classify each triangle by angles and by sides.**

|  |  |  |  |
| --- | --- | --- | --- |
| $$110°$$A:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_S:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | A:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_S:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | $$70°$$$$7$$$$8$$$$5$$A:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_S:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | A:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_S:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

**Find the values of the variables.**

|  |  |
| --- | --- |
| $$x°$$$$42°$$$$100°$$$x=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | $$30°$$$$x°$$$$x°$$$x=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| $$80°$$$$x°$$$$(3x-22)°$$$x=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | $$(x+20)°$$$$x°$$$$\left(2x\right)°$$$x=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

|  |  |
| --- | --- |
| $$117°$$$$x°$$$$33°$$$x=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | $$75°$$$$x°$$$x=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| $$54°$$$$x°$$$$z°$$$$52°$$$$y°$$$x=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_$y=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_$z=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | $$x°$$$$y°$$$$28°$$$$1$$$$2$$1. $m∠1=m∠2=62°$

$x=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_$y=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| $$45°$$$$47°$$$$y°$$$$z°$$$y=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_$z=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | $$45°$$$$115°$$$$y°$$$$x°$$$x=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_$y=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| $$48°$$$$x°$$$$\left(x-68\right)°$$$x=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | $$44°$$$$2x°$$$$\left(x+4\right)°$$$x=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| $$36°$$$$a°$$$$b°$$$$c°$$$$d°$$$$e°$$$a=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_$b=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_$c=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_$d=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_$e=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | $$16°$$$$\left(x+5\right)°$$$$\left(2x+3\right)°$$$$D$$$$A$$$$C$$$$B$$$x=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_$m∠A=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_$m∠B=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_$m∠ACB=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_$m∠DCA=$\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

**REVIEW PROBLEMS**

**Solve each of the following.**

|  |  |
| --- | --- |
| 1. $x=$ \_\_\_\_\_\_\_\_\_\_\_\_

$$S$$$$R$$$$T$$$$U$$ | $\overleftrightarrow{TU}$ bisects $\overbar{RS}$. If $RS=7x-12$ and $RT=2x+9$, find the value of ‘$x$’. |
| 1. $x=$ \_\_\_\_\_\_\_\_\_\_\_\_
 | $$\left(7x-22\right)°$$$$\left(3x+2\right)°$$Find the value of ‘$x$’. |