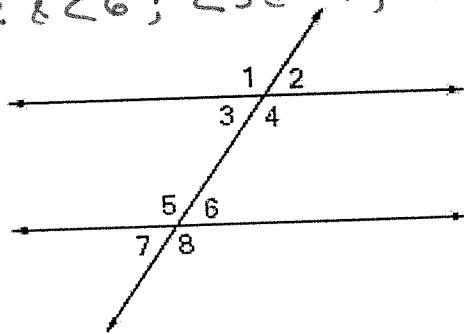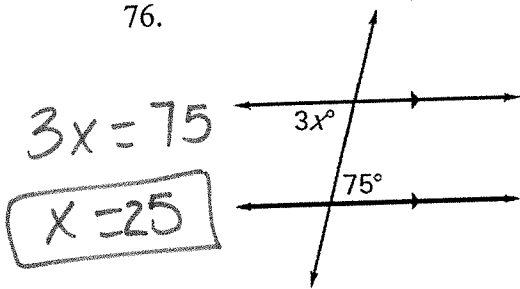Use the diagram to list all pairs of the defined angles.

71. Vertical angles $\angle 1, \angle 4$; $\angle 2 \& \angle 3$; $\angle 5 \& \angle 8$; $\angle 6 \& \angle 7$

72. Corresponding angles $\angle 1 \& \angle 5$; $\angle 2 \& \angle 6$; $\angle 3 \& \angle 7$; $\angle 4 \& \angle 8$

73. Alternate Interior angles $\angle 3 \& \angle 6$
    $\angle 4 \& \angle 5$

74. Consecutive Interior angles $\angle 3 \& \angle 5$
    $\angle 4 \& \angle 6$

75. Alternate Exterior angles
    $\angle 1 \& \angle 8$
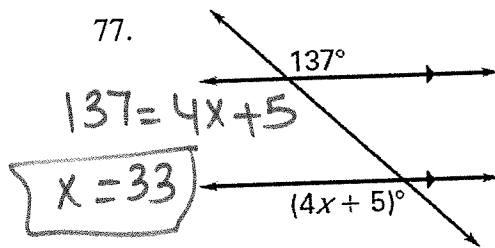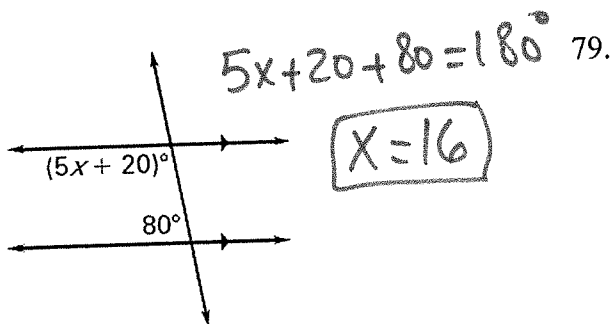 $\angle 2 \& \angle 7$
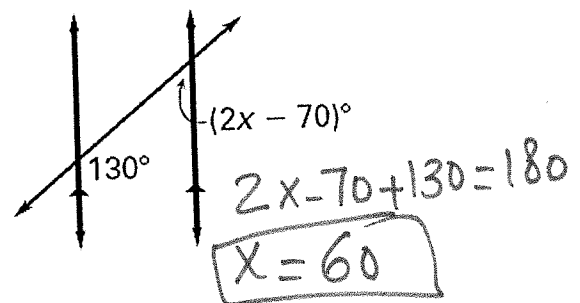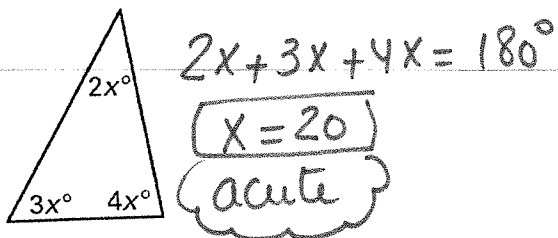

Find the value of x.

76.

$3x = 75$

$\boxed{X = 25}$

$3x°$

$75°$

77.

$137°$

$137 = 4x + 5$

$\boxed{X = 33}$

$(4x + 5)°$

78.

$(5x + 20)°$

$80°$

$5x + 20 + 80 = 180°$

$\boxed{X = 16}$

79.
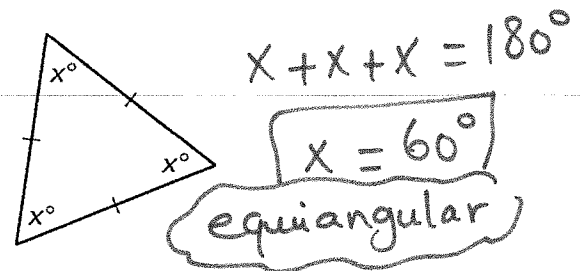

$(2x - 70)°$

$130°$

$2x - 70 + 130 = 180$

$\boxed{X = 60}$

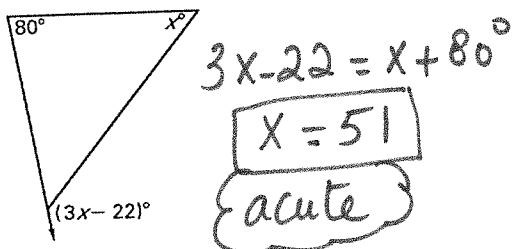Find the value of x. Then classify the triangle by its angles.

114.

$2x°$

$3x°$ $4x°$

$2x + 3x + 4x = 180°$

$\boxed{X = 20}$

acute

115.

$x°$

$x°$

$x°$

$x + x + x = 180°$

$\boxed{X = 60°}$

equiangular

116.

$80°$ $x°$

$(3x - 22)°$

$3x - 22 = x + 80°$

$\boxed{X = 51}$

acute

117

B

$2x°$

$76°$ $(5x - 2)°$

A C D

$2x + 76 = 5x - 2$

$\boxed{X = 26}$

acute