

25 Given: $\triangle FED$ is equilateral. \rightarrow sds \cong

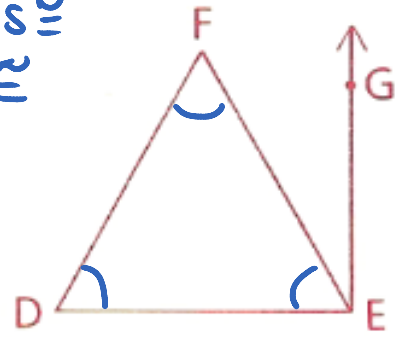
$90^\circ \leftarrow \overline{GE} \perp \overline{DE}$,

$$m\angle FEG = x + y,$$

$$\left[\begin{array}{l} m\angle D = 3x - 6, \\ m\angle F = 6y + 12 \end{array} \right.$$

Find: x , y , and $\angle F$

60°



$$3x - 6 = 6y + 12$$

&

$$\angle DEF + \angle FEG = \angle DEG$$

$$3x - 18 = 6y$$

$$60^\circ + x + y = 90^\circ$$

$$y = (3x - 18) / 6$$

$$y = -x + 30$$