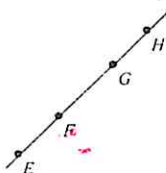
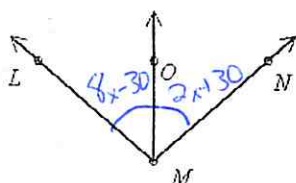


39. Name the ray that is opposite $\overrightarrow{GH}$.



40. $\overrightarrow{MO}$ bisects $\angle LMN$, $m\angle LMO = 8x - 30$, and $m\angle NMO = 2x + 30$. Solve for x and find $m\angle LMN$.



$$\begin{aligned} 8x - 30 &= 2x + 30 \\ -2x &\quad -2x \\ \hline 6x - 30 &= 30 \\ +30 &\quad +30 \\ \hline 6x &= 60 \\ \frac{6x}{6} &= \frac{60}{6} \\ x &= 10 \end{aligned}$$

$$\begin{aligned} \angle LMN &= \angle LMO + \angle NMO \\ \angle LMO &= 8(10) - 30 \\ &= 80 - 30 = 50^\circ \\ \angle NMO &= 2(10) + 30 \\ &= 20 + 30 = 50^\circ \\ 50 + 50 &= 100^\circ = m\angle LMN \end{aligned}$$

41. If $\overline{BCDE}$ is congruent to $\overline{OPQR}$, then $\overline{BC}$ is congruent to ?



42. Classify $\triangle ABC$ by its angles, when $m\angle A = 24^\circ$, $m\angle B = 84^\circ$, and $m\angle C = 72^\circ$.

Acute; all angles are less than 90° .

43. Find the distance between points $P(4, 6)$ and $Q(9, 2)$ to the nearest tenth.

$$\begin{aligned} d &= \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2} = \sqrt{(9 - 4)^2 + (2 - 6)^2} = \sqrt{(5)^2 + (-4)^2} = \sqrt{25 + 16} \\ &= \sqrt{41} \approx 6.4 \end{aligned}$$