

**Point Y lies on $\overline{XZ}$ with endpoints $X(-6, 8)$ and $Z(18, -8)$.
Find the coordinates of Y that make each description true.**

1. Y is $\frac{2}{3}$ of the distance from X to Z
2. the ratio of XY to YZ is $1:2$
3. Y is $\frac{1}{4}$ of the distance from Z to X
4. the ratio of XY to YZ is $3:5$