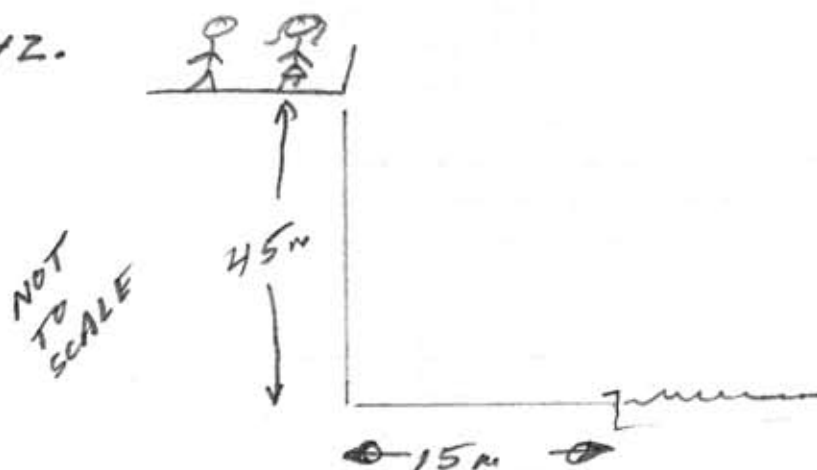


42.



WHEN IN DOUBT; FIND  $t$

$$t = \sqrt{\frac{2d}{g}}$$

$$= \sqrt{\frac{2(45\text{m})}{10\text{m/s}^2}}$$

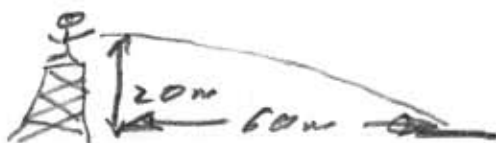
$$t = 3\text{s}$$

$$v_x = \frac{x}{t}$$

$$= \frac{15\text{m}}{3\text{s}}$$

$$v_x = 5\text{m/s}$$

44.



FIND  $v_i$

WHEN IN DOUBT; FIND  $t$

$$t = \sqrt{\frac{2d}{g}}$$

$$= \sqrt{\frac{2(20\text{m})}{10\text{m/s}^2}}$$

$$t = 2\text{s}$$

$$v_i = v_x = \frac{x}{t}$$

$$= \frac{60\text{m}}{2\text{s}}$$

$$v_i = 30\text{m/s}$$