| a) <br> Find the length labelled $x$. |  | b) Find the length labelled $x$. |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Which trigonometric ratio are we using? | $\sin \theta=\frac{O}{H} \quad \sin \theta=\frac{4}{x}$ | Which trigonometric ratio are we using? | $A_{x} \underbrace{50} \stackrel{4 H}{ }$ | $\cos \theta=\frac{A}{H} \quad \cos \theta=\frac{x}{4}$ |
| Is there an exact trigonometric value we can use? | $\sin \left(30^{\circ}\right)=\frac{1}{2}$ | Is there an exact trigonometric value we can use? | $\cos \left(60^{\circ}\right)=\frac{1}{2}$ |  |
| Can we form an equation? | $\frac{4}{x}=\frac{1}{2}$ | Can we form an equation? |  |  |
| What is the value of $x$ ? | $4=\frac{x}{2} \quad x=8$ | What is the value of $x$ ? |  |  |
| c) Find the length labelled $x$. |  | d) <br> Find the length labelled $x$. |  |  |
| Which trigonometric ratio are we using? | $\underbrace{800}_{x} \quad \sin \theta=\frac{O}{H} \quad \sin \theta=\frac{x}{8}$ |  |  |  |
| Is there an exact trigonometric value we can use? |  |  |  |  |
| Can we form an equation? |  |  |  |  |
| What is the value of $x$ ? |  |  |  |  |

