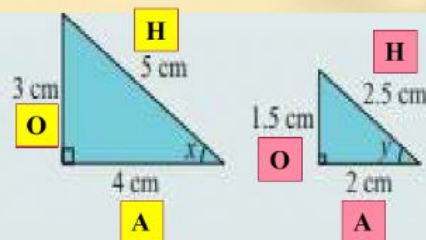


### 03 Example

Page 113

The diagram on the right shows two right-angled triangles. Determine whether all trigonometric ratios of angle  $x$  and angle  $y$  are equal. State the reason for your answer.



trigonometric ratios

$$\tan \theta = \frac{O}{A}$$

$$\sin \theta = \frac{O}{H}$$

$$\cos \theta = \frac{A}{H}$$

**Solution:**

$$\sin x = \frac{O}{H}$$

$$\cos x = \frac{A}{H}$$

$$\tan x = \frac{O}{A}$$

$$\sin y = \frac{O}{H}$$

$$\cos y = \frac{A}{H}$$

$$\tan y = \frac{O}{A}$$

$$= \frac{1.5}{2} = \frac{3}{4}$$

$$= \frac{3}{5}$$

$$= \frac{2}{2.5} = \frac{4}{5}$$

$$= \frac{3}{4}$$

$$= \frac{1.5}{2.5} = \frac{3}{5}$$

$$= \frac{4}{5}$$

The trigonometric ratios of angle  $x$  and angle  $y$  are  because the length of corresponding sides of the two triangles are .