The speed of light in medium X is v_x , the speed of light in medium Y is v_y and the speed of light in medium Z is v_7 .

The diagram shows a ray of light passing from medium X to medium Y to medium Z.

Which of the following shows the speeds in order of increasing magnitude?

$$\mathbf{A} \quad \mathbf{v}_{\mathbf{Y}} \quad \mathbf{v}_{\mathbf{X}} \quad \mathbf{v}_{\mathbf{Z}}$$

$$\mathbf{B} \quad \mathbf{v}_{\mathbf{Y}} \quad \mathbf{v}_{\mathbf{Y}} \quad \mathbf{v}_{\mathbf{Y}}$$

$$\mathbf{B} \quad v_{\mathbf{Z}} \quad v_{\mathbf{X}} \quad v_{\mathbf{Y}}$$

$$\square$$
 C $v_{\rm X}$ $v_{\rm Y}$ $v_{\rm Z}$

$$\square$$
 D $v_{\mathrm{Y}} v_{\mathrm{Z}} v_{\mathrm{X}}$

(Total for Question 7 = 1 mark)