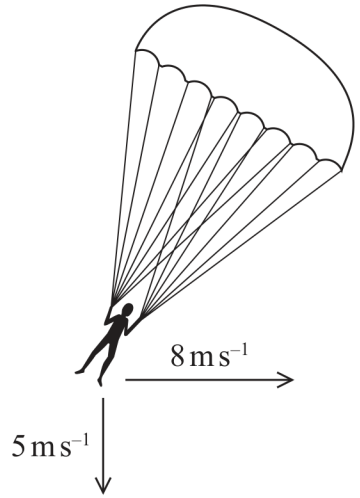
4 The diagram shows a student during a parachute jump on a windy day. The vertical component of her velocity is $5.0\,m\,s^{-1}$. The horizontal component of her velocity is $8.0\,m\,s^{-1}$. She descends at an angle θ to the vertical.



Which row of the table gives expressions for the magnitude and angle of the student's resultant velocity?

	Magnitude / $m\,s^{-1}$	θ / °
☒ **A**	$\sqrt{8^2 - 5^2}$	$\tan^{-1}\frac{8}{5}$
☒ **B**	$\sqrt{8^2 - 5^2}$	$\sin^{-1}\frac{5}{8}$
☒ **C**	$\sqrt{8^2 + 5^2}$	$\tan^{-1}\frac{8}{5}$
☒ **D**	$\sqrt{8^2 + 5^2}$	$\sin^{-1}\frac{5}{8}$

(Total for Question 4 = 1 mark)