1 What is the unit watt in terms of SI base units?

A Js^{-1} **B** $m^2\,kg\,s^{-1}$ **C** $m^2\,kg\,s^{-3}$ **D** Nms^{-1}

2 For which quantity is the magnitude a reasonable estimate?

A frequency of a radio wave   500 pHz

B mass of an atom   500 μg

C the Young modulus of a metal   500 kPa

D wavelength of green light   500 nm

3 A vector has magnitude R and perpendicular components P and Q, as shown in the diagram.
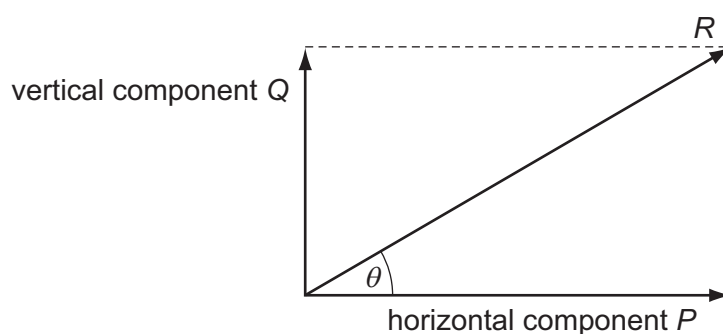
Which row correctly describes the perpendicular components?

	vertical component	horizontal component
A	Q	$R\sin\theta$
B	$R\cos\theta$	P
C	$R\cos\theta$	$R\sin\theta$
D	$R\sin\theta$	$R\cos\theta$

Space for working