1 The prefixes nano (n), micro (μ) and pico (p) are often used with units.

Which row shows their correct values?

	n	μ	p
A	10^{-6}	10^{-9}	10^{-12}
B	10^{-6}	10^{-12}	10^{-9}
C	10^{-9}	10^{-6}	10^{-12}
D	10^{-12}	10^{-9}	10^{-6}

2 A crane has an arm to which is attached a frictionless pulley. A cable passes over the pulley and supports a load of 10 kN as shown.
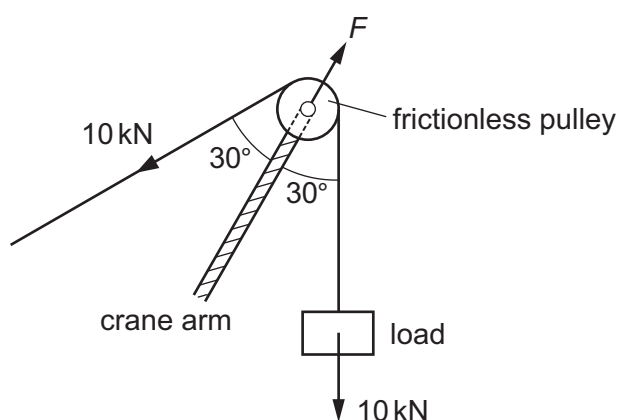
The crane arm exerts a force F on the pulley.

What is the value of F?

A 5.0 kN **B** 8.7 kN **C** 10 kN **D** 17 kN

3 The SI unit of specific heat capacity is $J\,kg^{-1}\,K^{-1}$.

What is the unit of specific heat capacity expressed in SI base units?

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

4 Quantity X has a fractional uncertainty of x. Quantity Y has a fractional uncertainty of y.

What is the fractional uncertainty in $\dfrac{X}{Y^2}$?

A $x + y$ **B** $x - y$ **C** $x + 2y$ **D** $x - 2y$