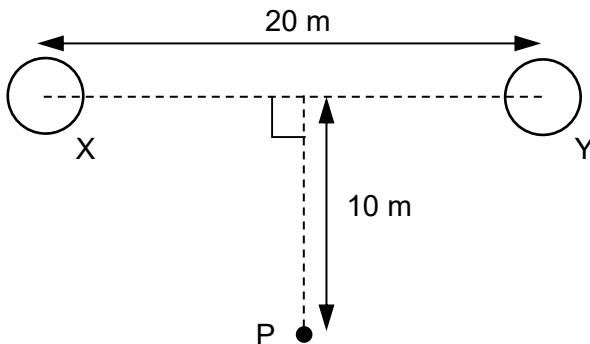


- 7 Two identical 30 kg point masses X and Y are placed 20 m apart as shown.



P is a point 10 m perpendicular to the midpoint between X and Y.

What is the resultant gravitational field strength g and gravitational potential ϕ at P?

	$g / \text{N kg}^{-1}$	$\phi / \text{J kg}^{-1}$
A	1.4×10^{-11}	-2.8×10^{-10}
B	1.4×10^{-11}	0
C	2.0×10^{-11}	-2.8×10^{-10}
D	2.0×10^{-11}	0

- 8 A satellite orbits a planet at a distance r from its centre. Its kinetic energy is 3.2 MJ.