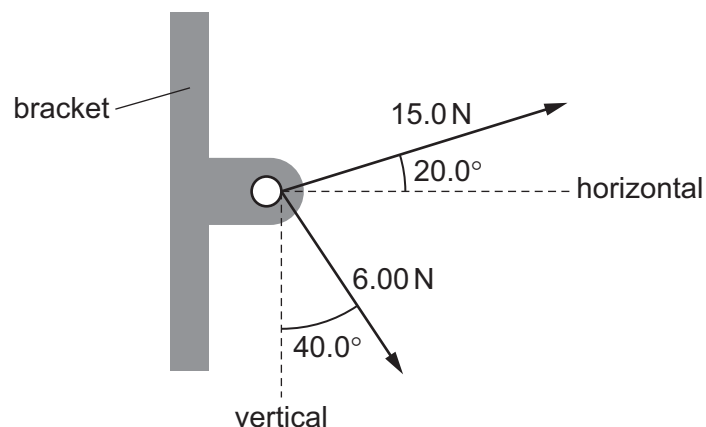


- 4 Two cables are attached to a bracket and exert forces as shown.



What are the magnitudes of the horizontal and vertical components of the resultant of the two forces?

	horizontal component / N	vertical component / N
A	9.73	0.534
B	9.73	10.2
C	18.0	0.534
D	18.0	10.2

- 5 A student wishes to determine the density ρ of lead. She measures the mass and diameter of a small sphere of lead:

$$\text{mass} = (0.506 \pm 0.005) \text{ g}$$

$$\text{diameter} = (2.20 \pm 0.02) \text{ mm}.$$

What is the best estimate of the percentage uncertainty in her calculated value of ρ ?

- A** 1.7% **B** 1.9% **C** 2.8% **D** 3.7%