

18.1 Using Pythagoras' Theorem and Trigonometry in Three Dimensions

- (a) 17.3 cm (1 d.p.) (b) 39.1 cm (1 d.p.) (c) 23.9 cm (1 d.p.) (d) $3x$
- $\sqrt{28} \approx 5.29$ cm
- (a) 6 cm (b) 33.1° (1 d.p.) (c) 45°
- (a) (2, 0, 2) (b) $\sqrt{8} \approx 2.83$
- (a) 33.7° (1 d.p.) (b) 10 cm (c) 21.8° (1 d.p.)
- (a) 11.2 cm (1 d.p.) (1 d.p.) (b) 63.4° (1 d.p.)
- 7 cm
- (a) (i) 6 (ii) (4, 5, 2) (b) (7, 8, 2) (c) 7
- $h = 9.98$ cm
- Angle between the edge VA and the base ABCD is $57.97\dots^\circ \approx 58^\circ$.
- (a) BH = 13 cm (b) $y > x$

18.2 Angles and Planes

- (a) 30 cm (b) 38.9° (1 d.p.) (c) 26.6° (1 d.p.)
- 13 cm (a) 53.1° (1 d.p.) (b) 17.9° (1 d.p.) (c) 67.4° (1 d.p.)
- 22.4° , 45.2° (1 d.p.)
- (a) 60° (b) 10.4 cm (1 d.p.) (c) 46.1° (1 d.p.)
- (a) 10 cm (b) 24 cm (c) 45.2° (1 d.p.) (d) 24.7 cm (1 d.p.)
- (a) 24 cm (1 d.p.) (b) 15.8° (1 d.p.)
- (a) 10.3 cm (1 d.p.) (b) 14.4° (1 d.p.)