

Workout

Question 1:

- (a) 6.388cm (b) 6.651cm (c) 60.484mm

Question 2:

- (a) 8.385cm (b) 3.381cm (c) 3.39m
(d) 11.431cm (e) 24.458cm (f) 29.471cm

Question 3:

- (a) 37.136° (b) 26.756° (c) 40.505°

Question 4:

- (a) 64° (b) 40° (c) 8.993°

Question 5:

- (a) 8.24cm (b) 19.076° (c) 5.11mm
(d) 39.732° (e) 156.869° (f) 85.83cm

Question 6:

- (a) 68.7° or 111.3° (b) 78.1° or 101.9° (c) 48.6° or 131.4°

Apply

Question 1: (a) $BD = 22.227\text{cm}$ (b) 103° (c) 33.693cm

Question 2: 17.116cm

Question 3: 48.938km

Question 4: (a) 216.1m (b) 772.3m

Question 5: 26.558m

Question 6:

Tri 1: $DE = 6.2$ $EF = 7.9$ $DF = 11.62$ $\text{Angle DFE} = 30^\circ$ $\text{Angle DEF} = 110.4^\circ$ $\text{Angle EDF} = 39.6^\circ$

Tri 2: $DE = 6.2$ $EF = 7.9$ $DF = 2.06\text{cm}$ $\text{Angle DFE} = 30^\circ$ $\text{Angle DEF} = 9.6^\circ$ $\text{Angle EDF} = 140.4^\circ$

Question 7: 73.4m

Question 8: 3.5km/h

Question 9: 24.7244cm

Question 10: [Proof of the Sine Rule](#)