

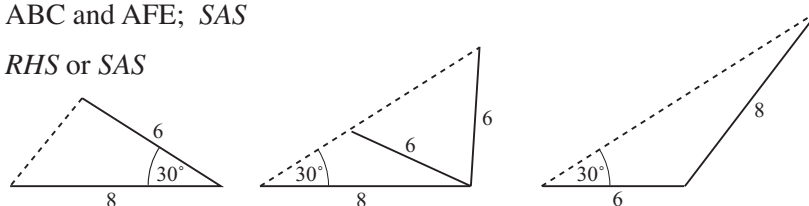
Student Text *UNIT 33 Congruence and Similarity*

Answers

33.1 Congruence

1. ABC and DEF (SSS); JKL and GHI (SAS); MON and PRQ (AAS)
2. Could be SSS, SAS, ASA or RHS
3. SAS
4. SAS
5. ABC and AFE; SAS
6. RHS or SAS

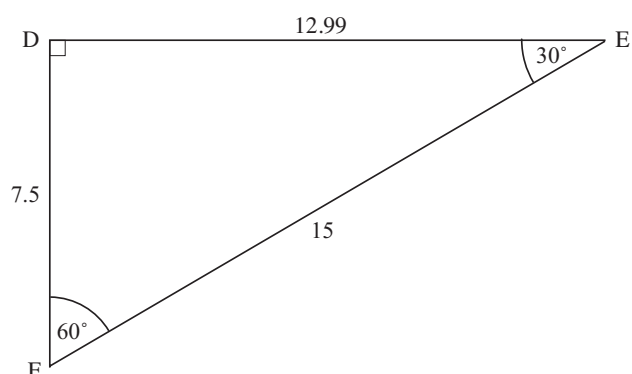
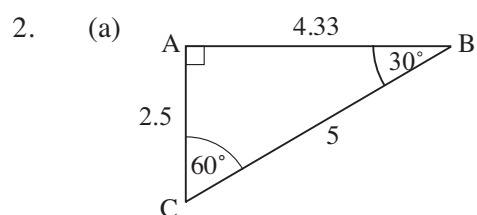
7.



8. AXB and CXD; BXC and DXA
9. (a) SSS (b) SAS (or SSS or RHS)

33.2 Similarity

1. A and E; C and F, B and D



- (b) 1 : 9
3. (a) AB = 3 cm, DH = 4 cm (b) AB = 4 cm, EH = 3 cm
 4. (a) 1 : 4 (b) 1 : 3
 5. (b) (i) 17.5 cm (ii) 10.5 cm (iii) 9 cm (c) (i) 4 : 25 (ii) 4 : 21
 6. (b) parallel (c) $x = 10$ cm, $y = 14$ cm (d) 9 : 40
 7. (a) 101.25 cm^3 (b) 58.59375 cm^3 (c) 468.75 cm^3
 8. (a) 400 cm^3 (b) 4
 9. (a) (i) 44% (ii) 72.8% (b) 14.5%
 10. (a) 2 : 3 (b) 4 : 9
 11. (a) 12 cm (b) 64 cm^3
 12. (a) 63 cm (b) 16.7°
 13. (a) 2.5 cm (b) 60° (c) 10.83 cm

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33.2

14. 280 m
15. (a) 3.44 cm (b) 40.7° (c) (i) 104.3° (ii) 18 cm
16. (a) (i) APR (ii) $\frac{25}{9}$ m (b) 25.8°
17. (a) 1.63 : 1 (b) 2.08 : 1 (c) Yes – as volume is about half
18. (a) 12 ml (b) $\frac{9}{10}$
- (c) *small*: 1.44 ml per cent; *medium*: 1.5 ml per cent; so *medium* is the better offer
- (d) (i) 55 ml (ii) 132.5 ml
19. (a) 81 cm^3 (b) 4.5 cm