

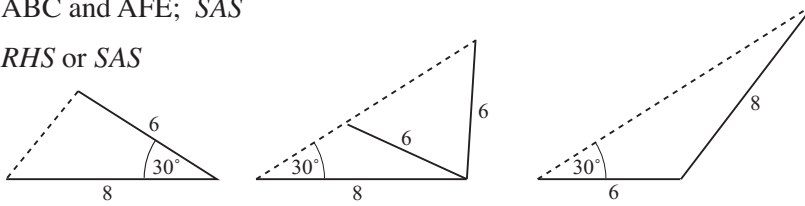
# Congruence and Similarity

# Answers

## 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.

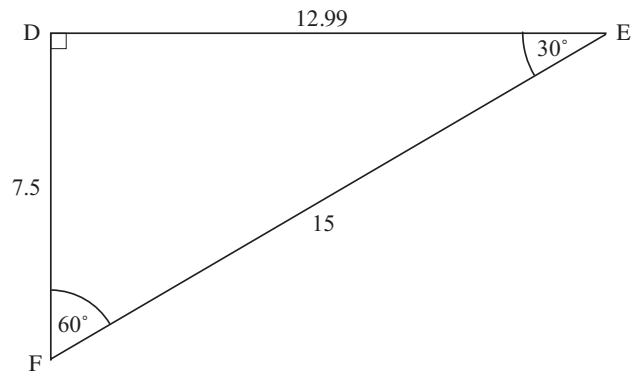
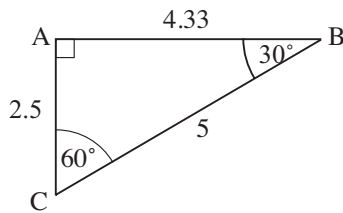


8. AXB and CXD; BXC and DXA
9. (a) SSS (b) SAS (or SSS or RHS)

## 2 Similarity

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

2. (a)



(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)  $101.25 \text{ cm}^3$  (b)  $58.59375 \text{ cm}^3$  (c)  $468.75 \text{ cm}^3$
8. (a)  $400 \text{ cm}^3$  (b) 4
9. (a) (i) 44% (ii) 72.8% (b) 14.5%
10. (a) 2 : 3 (b) 4 : 9
11. (a) 12 cm (b)  $64 \text{ cm}^3$
12. (a) 63 cm (b)  $16.7^\circ$
13. (a) 2.5 cm (b)  $60^\circ$  (c) 10.83 cm

*Congruence and Similarity*Answers

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14. 280 m

15. (a) 3.44 cm (b)  $40.7^\circ$  (c) (i)  $104.3^\circ$  (ii) 18 cm16. (a) (i) APR (ii)  $\frac{25}{9}$  m (b)  $25.8^\circ$ 

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)  $81 \text{ cm}^3$  (b) 4.5 cm