1. **a)** 0.8 **b)** $\dfrac{6}{5}$

   c) 8.9 **d)** 2.1

   e) $\dfrac{10}{3}$ **f)** 1

   g) 5.5 **h)** 2.1

2. 978 m^2

3. No; −43

4. $6^6 = 46\ 656$

5. **a)** 225, 89.25, −223.94, 3 × (−22.39)

   b) 225 + 89.25 + (−223.94) + 3 × (−22.39)

   c) $23.14

6. −0.63

7. **a)**

t	0	1	2	3	4
d	0	3	6	9	12

   b) Yes, because time and distance are not discrete.

   c) The relation is linear; the graph is a straight line.

   d) $d = 3t$

   e) 45 m

   f) About 5.6 min

8. **a)** About $140 **b)** About 15 weeks

   c) For example, Colton may change the number of
      hours he works per week

9. **a)** $-2n^2 - 9n + 13$ or $-10n^2 - 5n + 3$

10. **a)** $6x^2 + 7x$ **b)** 24 cm^2

11. **b)** $t = 5$

12. **b)** Jerry can ride the pedicab for about 15 min.

13. **a)** 9.4 cm by 8 cm

   b) 8.225 cm by 7 cm

   c) 16.45 cm by 14 cm

14. **a)** $\dfrac{1}{40}$ **b)** 0.045 m by 0.03 m

15. About 8.2 m

16. **a)** Line symmetry about the horizontal line through
      5 on the y-axis

   b) Line symmetry about the vertical line through
      4 on the x-axis

   c) Line symmetry about the line through AD;
      line symmetry about the line through (0, 1)
      and (4, 5); rotational symmetry of order 2 about
      the midpoint of AD

17. **a)** Yes, rotational symmetry of order 2 with an angle
      of 180°.

   b) **ii)** 90° clockwise about (−2, −3): (−1, 1),
            (−1, −3), (−2, −3), (−2, −4), (−6, −4), (−6, −2),
            (−3, −2), (−3, 1)
            180° about Q: (−2, −2), (−2, −4), (−6, −4),
            (−6, −6), (−10, −6), (−10, −4), (−6, −2);
            rotational symmetry of order 2 around Q

   270° clockwise about (−4, −4): (−2, −2),
   (−2, −4), (−4, −4), (−4, −6), (−6, −6), (−6, −2)

18. About 15.0 cm

19. About 10.1 cm

20. $x° = 250°, y° = 110°, z° = 55°$

21. About 18.5 cm

22. About 125 cm

23. $x° = 65°, y° = 50°, z° = 130°$

24. **a)** The other team will be the same skill level as the
      previous teams.

   b) If the other team is better than previous teams,
      Bao's team is more likely to lose; if the other
      team is worse, Bao's team is more likely to win.

26. **a)** On-line survey

   b) Not valid, because readers of a fashion magazine
      would be more likely to spend money on clothing
      than the average person.

27. **a)** Too time-consuming

   b) Too time-consuming

28. **a)** Sample **b)** Census