

CHAPTER 14 Area

Plenty of class discussion is advisable before finding areas of specific objects: e.g. What is “area”? Why is area counted in squares and not in triangles? The number of squares may vary because it is not always easy to say whether more than half a square is included.

EXERCISE 14a (p. 202)

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|-------|-------|--------------|--------|--------|
| 1. 11 | 5. 26 | 8. a) A b) B | 11. 50 | 14. 76 |
| 2. 16 | 6. 20 | 9. 45 | 12. 40 | 15. 62 |
| 3. 11 | 7. 21 | 10. 43 | 13. 37 | 16. 26 |
| 4. 20 | | | | |

EXERCISE 14b (p. 206)

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|---------------------|----------------------|------------------------------|-----------------------|--------------------------|
| 1. 4cm^2 | 5. 2.25cm^2 | 9. $\frac{1}{4}\text{km}^2$ | 13. 27m^2 | 17. 2.85m^2 |
| 2. 64cm^2 | 6. 6.25cm^2 | 10. $\frac{9}{16}\text{m}^2$ | 14. 280cm^2 | 18. 30.24cm^2 |
| 3. 100cm^2 | 7. 0.49m^2 | 11. 30cm^2 | 15. 3.96mm^2 | 19. $22\,800\text{cm}^2$ |
| 4. 25cm^2 | 8. 1.44cm^2 | 12. 48cm^2 | 16. 1470km^2 | 20. $36\,000\text{mm}^2$ |

EXERCISE 14c (p. 207)

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|---------------------|---------------------|--------------------|---------------------|----------------------|
| 1. 120cm^2 | 3. 149m^2 | 5. 52m^2 | 7. 544mm^2 | 9. 43m^2 |
| 2. 36m^2 | 4. 208mm^2 | 6. 87cm^2 | 8. 90cm^2 | 10. 228cm^2 |

EXERCISE 14d (p. 209)

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|---------|----------|----------|-----------|------------|
| 1. 8cm | 5. 6cm | 9. 2km | 13. 24m | 17. 6.8m |
| 2. 32cm | 6. 10cm | 10. 3m | 14. 68cm | 18. 22.2cm |
| 3. 40cm | 7. 2.8m | 11. 22cm | 15. 8mm | 19. 670cm |
| 4. 20cm | 8. 4.8cm | 12. 28cm | 16. 154km | 20. 780mm |

EXERCISE 14e (p. 209)

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|-------------------------|-------------------------|--------------|-------------------------|---------------------------|
| 1. 2cm, 8cm^2 | 3. 5m, 15m^2 | 5. 5cm, 22cm | 7. 9km, 26km | 9. 25cm, 125cm^2 |
| 2. 2cm, 10cm^2 | 4. 9mm, 54mm^2 | 6. 12m, 44m | 8. 9mm, 32mm^2 | 10. 80cm, 202cm |

EXERCISE 14f (p. 210)

Intended for the above average.

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|---------------------------|---------------------------|------------------------------|---------------------|-----------------------|
| 1. 28cm^2 , 24cm | 3. 80mm^2 , 48cm | 5. 1664cm^2 , 272cm | 7. 91cm^2 | 9. 432cm^2 |
| 2. 24cm^2 , 24cm | 4. 15m^2 , 32cm | 6. 184cm^2 | 8. 198cm^2 | 10. 4.84cm^2 |

EXERCISE 14g (p. 212)

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|------|------|------|-------|--------|
| 1. 4 | 3. 6 | 4. 6 | 5. 45 | 6. 500 |
| 2. 9 | | | | |

EXERCISE 14h (p. 213)

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|--------------|------------|-----------|------------|-----------|
| 1. a) 30 000 | b) 120 000 | c) 75 000 | d) 820 000 | e) 85 000 |
| 2. a) 1400 | b) 300 | c) 750 | d) 2600 | e) 3250 |
| 3. a) 560 | b) 56 000 | | | |
| 4. a) 4 | b) 25 | c) 0.5 | d) 0.25 | e) 7.34 |
| 5. a) 0.55 | b) 14 | c) 0.076 | d) 1.86 | e) 2970 |
| 6. a) 7.5 | b) 0.43 | c) 0.05 | d) 0.245 | e) 176 |

EXERCISE 14i (p. 215)

Pupils will benefit from using a calculator.

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|--------------------------|---------------------------|--------------------------|--------------------------|--------------------------|
| 1. 50 000cm ² | 3. 175 000cm ² | 5. 8m ² | 7. 37 500cm ² | 9. 120 000m ² |
| 2. 1800mm ² | 4. 14 000cm ² | 6. 15 000cm ² | 8. 180mm ² | 10. 22 500m ² |

EXERCISE 14j (p. 215)

Average ability children should be encouraged to try some of these with the help of a calculator.

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|------------------------------|------------------------------|--------------------|------------------------|--------|
| 1. 8250m ² , 370m | 3. 8400m ² , 380m | 5. 5m ² | 7. £9 | 9. 100 |
| 2. 7000m ² , 340m | 4. 312m ² , 76m | 6. 1200 | 8. 9000cm ² | 10. 96 |