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1. $a = 15^\circ$
2. $b = 47^\circ$, $c = 133^\circ$
3. $d = 146^\circ$
4. $e = 57^\circ$, $f = 123^\circ$
5. $g = 52^\circ$
6. $h = 157^\circ$
7. $i = 246^\circ$
8. $j = 58^\circ$
9. $k = 78^\circ$
10. $l = 138^\circ$

Think. 60° , 30° , 90°

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1. $a = 45^\circ$
2. $b = 69^\circ$, $c = 111^\circ$
3. $d = 99^\circ$
4. $e = 289^\circ$
5. $f = 58^\circ$
6. $g = 15^\circ$
7. $h = 246^\circ$
8. $i = 36^\circ$, $j = 54^\circ$
9. $k = 75^\circ$
10. $l = 139^\circ$

Think. 36° , 72° , 108° , 144°

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1. area = 54 cm^2 ,
perimeter = 30 cm
2. area = 40.5 cm^2 ,
perimeter = 27 cm
3. area = 81 cm^2 ,
perimeter = 36 cm
4. area = 33 cm^2 ,
perimeter = 28 cm
5. area = 48 cm^2 ,
perimeter = 42 cm
6. area = 24 cm^2 ,
perimeter = 22 cm
7. area = 12 cm^2 ,
perimeter = 16 cm
8. area = 6 cm^2 ,
perimeter = 12 cm
9. area = 48 cm^2 ,
perimeter = 31 cm

Think. Answers will vary.

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1. area = 14 cm^2 ,
perimeter = 17.9 cm
2. area = 27 cm^2 ,
perimeter = 25.8 cm

3. area = 13.5 cm^2 ,
perimeter = 21.4 cm
 4. area = 30 cm^2 ,
perimeter = 30 cm
 5. area = 33.6 cm^2 ,
perimeter = 26.2 cm
 6. area = 16 cm^2 ,
perimeter = 24.6 cm
 7. volume = 84 cm^3
 8. volume = 648 cm^3
 9. volume = 264 cm^3
 10. volume = 288 cm^3
- Think. 238 cm^3 , 192 cm^3

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1. 10:50
 2. 16:45
 3. 4:28 or twenty-eight minutes past four
 4. 7:05 or five past seven
 5. 25 minutes
 6. 1 hour 20 minutes
- Think. 3

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1. 8:25 pm
 2. 12:03
 3. £20, £15
 4. 4 hours 10 minutes
 5. 11:45
 6. Aston, 3:20 pm
- Think. 3:05

Page 60

1. 45 minutes
 2. Three minutes to eight in the evening
 3. Thirteen minutes past four in the afternoon
 4. 10:46
- Think. I am to 9 am

Page 61

1. 525
2. 150
3. 375
4. 1700
5. -2°C
6. 16°C
7. 09:30
8. 1°C and 10°C

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1. 17
2. 2, Didcot Athletic and Southall City
3. 5
4. 60
5. 9 am
6. 3500 m
7. 2700 m
8. 1000 m; answers will vary, e.g. the climb gets steeper

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1. 25
2. No, 20 Year 6 and 15 Year 2 like reading
3. Yes, 10 children in each year like to play sports
4. 15
5. 20 kg
6. 50 kg
7. Approximately 560 kg
8. $1\frac{1}{2}$ stone
9. 6 stone
10. 40 stone

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1. Answers will vary.
2. £5242.88 and £2000
3. Answers will vary.
4. The first deal.
5. £127 500

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Questions should be answered using Brahmagupta's method

1. 16 214
2. 14 518
3. 6372
4. 14 924
5. 86 508
6. 148 192
7. 90 480
8. 93 272