

## Page 122

**A**

- |                      |             |               |
|----------------------|-------------|---------------|
| <b>1</b> B E G I     | <b>6</b> H  | <b>11</b> B E |
| <b>2</b> A D H       | <b>7</b> A  | <b>12</b> C F |
| <b>3</b> B E I       | <b>8</b> I  | <b>13</b> A D |
| <b>4</b> A C D F H J | <b>9</b> J  |               |
| <b>5</b> J           | <b>10</b> D |               |

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**B**

- |            |            |            |            |             |
|------------|------------|------------|------------|-------------|
| <b>1</b> G | <b>3</b> D | <b>5</b> F | <b>7</b> I | <b>9</b> E  |
| <b>2</b> A | <b>4</b> B | <b>6</b> H | <b>8</b> C | <b>10</b> J |
- 11** triangular prism      5 faces      9 edges      6 vertices  
 square based pyramid      5 faces      8 edges      5 vertices  
 cuboid      6 faces      12 edges      8 vertices  
 triangular based pyramid      4 faces      6 edges      4 vertices  
 cube      6 faces      12 edges      8 vertices  
 hexagonal prism      8 faces      18 edges      12 vertices
- 12** triangular prism  
**13** triangular based pyramid  
**14** square  
**15 a)** 15      **b)** 10

**C**

- |                 |                              |              |
|-----------------|------------------------------|--------------|
| <b>1 a)</b> 7   | <b>b)</b> 15                 | <b>c)</b> 10 |
| <b>2 a)</b> Yes | <b>b)</b> A triangular prism |              |
|                 | C cube                       |              |
|                 | F cuboid                     |              |
|                 | J hexagonal prism            |              |
| <b>3 a)</b> 9   | <b>b)</b> 21                 | <b>c)</b> 14 |
| <b>4 a)</b> 30  | <b>b)</b> 20                 |              |
| <b>5 a)</b> 6   | <b>b)</b> pentagonal         |              |
| <b>6 a)</b> 16  | <b>b)</b> octagonal          |              |
| <b>7 a)</b> 7   | <b>b)</b> hexagonal          |              |

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**A**

- 1** A equilateral triangle  
 C regular pentagon  
 F square  
**2** B unequal angles  
 D unequal sides  
 E unequal angles  
**3 a)** rectangle      **b)** rhombus

**B**

- 4 a)**  $120^\circ$       **b)**  $60^\circ$       **c)**  $120^\circ$       **d)**  $240^\circ$

**C**

**1**  $x = 72^\circ$

## Page 126

**A**

- 9** A (0, 4) (6, 4)    C (6, 2) (0, 2)    E (6, 5) (6, 1)    G (4, 1) (4, 5)  
 B (2, 6) (2, 0)    D (5, 1) (5, 5)    F (0, 2) (6, 2)    H (5, 0) (1, 0)

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**B**

- 5** A (2, 6) (2, 0)    C (1, 0) (1, 6)    E (2, 5) (4, 5)    G (6, 2) (0, 2)  
 B (6, 4) (6, 2)    D (4, 2) (4, 4)    F (0, 1) (6, 1)    H (4, 0) (2, 0)

**C**

- 5** A (3, 2) (2, 3)    C (8, 3) (3, 8)    E (7, 2) (6, 1)    G (5, 7) (1, 3)  
 B (6, 5) (5, 6)    D (6, 3) (3, 6)    F (2, 7) (1, 6)    H (7, 5) (3, 1)

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**A**

- |          |    |   |   |     |    |          |     |
|----------|----|---|---|-----|----|----------|-----|
| <b>1</b> | 72 |   | 3 | 700 |    | <b>5</b> | 108 |
|          | 12 | 6 |   | 35  | 20 |          | 12  |
|          | 6  | 2 | 3 | 7   | 5  | 4        | 9   |
- 
- |          |     |    |          |      |    |   |
|----------|-----|----|----------|------|----|---|
| <b>2</b> | 128 |    | <b>4</b> | 2700 |    |   |
|          | 8   | 16 |          | 30   | 90 |   |
|          | 4   | 2  | 8        | 3    | 10 | 9 |

**B**

- |          |      |    |          |     |    |
|----------|------|----|----------|-----|----|
| <b>1</b> | 5400 |    | <b>4</b> | 216 |    |
|          | 60   | 90 |          | 18  | 12 |
|          | 10   | 6  | 15       | 9   | 2  |
|          | 5    | 2  | 3        | 9   | 1  |
- 
- |          |      |     |          |     |    |
|----------|------|-----|----------|-----|----|
| <b>2</b> | 8000 |     | <b>5</b> | 960 |    |
|          | 80   | 100 |          | 24  | 40 |
|          | 8    | 10  | 10       | 6   | 4  |
|          | 4    | 2   | 5        | 2   | 5  |

**C**

- |          |     |    |   |   |
|----------|-----|----|---|---|
| <b>3</b> | 224 |    |   |   |
|          | 14  | 16 |   |   |
|          | 7   | 2  | 8 |   |
|          | 7   | 1  | 2 | 4 |

**C**

- |          |        |    |   |   |
|----------|--------|----|---|---|
| <b>1</b> | 15 000 |    |   |   |
|          | 250    | 60 |   |   |
|          | 25     | 10 | 6 |   |
|          | 5      | 5  | 2 | 3 |

- |          |      |     |    |   |
|----------|------|-----|----|---|
| <b>2</b> | 5832 |     |    |   |
|          | 54   | 108 |    |   |
|          | 6    | 9   | 12 |   |
|          | 2    | 3   | 3  | 4 |

- |          |         |     |    |   |
|----------|---------|-----|----|---|
| <b>3</b> | 144 000 |     |    |   |
|          | 240     | 600 |    |   |
|          | 12      | 20  | 30 |   |
|          | 3       | 4   | 5  | 6 |

**4** Bottom layers    2 5 1 4, 2 1 5 4, 4 5 1 2, 4 1 5 2

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**B**

- 1 b)** (3, 6) (4, 4) (5, 6)  
**c)** (1, 2) (2, 0) (3, 2)
- 2 a)** (5, 3) (5, 5) (6, 6) (6, 4)  
**b)** (3, 0) (3, 2) (4, 3) (4, 1)

**C**

- 1 b)** (3, 1) (4, 3) (5, 0)  
**c)** (0, 4) (1, 6) (2, 3)
- 2 a)** (4, 5) (4, 6) (6, 4) (5, 3)  
**b)** (0, 2) (0, 3) (2, 1) (1, 0)

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**B**

- 7 a)** (6, 5) (4, 7) (5, 8) (7, 8) (7, 6)  
**b)** (7, 0) (5, 2) (6, 3) (8, 3) (8, 1)  
**c)** (2, 4) (0, 6) (1, 7) (3, 7) (3, 5)

| A          | B             | C |
|------------|---------------|---|
| Favour     | Number chosen |   |
| hazelnut   | 8             |   |
| orange     | 5             |   |
| peach      | 9             |   |
| strawberry | 6             |   |

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A

- (a) (2, 9) (3, 12) (4, 11) (5, 12) (4, 9) (3, 10)  
 (b) (8, 8) (9, 11) (10, 10) (11, 11) (10, 8) (9, 9)  
 (c) (0, 2) (1, 5) (2, 4) (3, 5) (2, 2) (1, 3)

| A            | B              | C |
|--------------|----------------|---|
| No. of goals | No. of matches |   |
| 0            | 9              |   |
| 1            | 17             |   |
| 2            | 15             |   |
| 3            | 6              |   |
| 4            | 3              |   |

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B

- 1 Th  
 2 a) 150  
 b) 300  
 3 a) 4th  
 b) 4th  
 4 9th  
 5 a) 3rd  
 b) 3rd  
 6 9th  
 7 a) 4th  
 b) 9th  
 8 a) 5  
 b) 4

| A   | B         | C |
|-----|-----------|---|
| Age | Childdren |   |
| 9   | 11        |   |
| 8   | 9         |   |
| 6   | 6         |   |
| 10  | 10        |   |
| 11  | 11        |   |

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B

- 1 a) 7th  
 b) 2nd  
 2 a) 14°C  
 b) 9°C  
 3 a) 3rd  
 b) 9th  
 4 4th  
 5 4°  
 6 2°  
 7 a) 4th  
 b) 9th  
 8 a) 5  
 b) 4

| A          | B             | C |
|------------|---------------|---|
| Favour     | Number chosen |   |
| hazelnut   | 8             |   |
| orange     | 5             |   |
| peach      | 9             |   |
| strawberry | 6             |   |

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A

- (a) (2, 9) (3, 12) (4, 11) (5, 12) (4, 9) (3, 10)  
 (b) (8, 8) (9, 11) (10, 10) (11, 11) (10, 8) (9, 9)  
 (c) (0, 2) (1, 5) (2, 4) (3, 5) (2, 2) (1, 3)

| A            | B              | C |
|--------------|----------------|---|
| No. of goals | No. of matches |   |
| 0            | 9              |   |
| 1            | 17             |   |
| 2            | 15             |   |
| 3            | 6              |   |
| 4            | 3              |   |

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A

| A      | B           | C |
|--------|-------------|---|
| Colour | No. of caps |   |
| black  | 10          |   |
| red    | 8           |   |
| white  | 15          |   |
| yellow | 9           |   |

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B

| A           | B            | C |
|-------------|--------------|---|
| River depth | No. of weeks |   |
| 2 m         | 8            |   |
| 3 m         | 15           |   |
| 4 m         | 12           |   |
| 5 m         | 9            |   |
| 6 m         | 5            |   |

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C

| A          | B            | C |
|------------|--------------|---|
| Restaurant | No. of votes |   |
| Chinese    | 13           |   |
| English    | 12           |   |
| French     | 11           |   |
| Taiwan     | 15           |   |
| Thai       | 9            |   |

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A

| A   | B          | C |
|-----|------------|---|
| No. | Mercury    |   |
| 1   | 17.9 hours |   |
| 2   | 88 days    |   |
| 3   | 7926 miles |   |
| 4   | 140°C      |   |
| 5   | 6 Mars     |   |
| 6   | 7 Jupiter  |   |
| 7   | 8 Saturn   |   |
| 8   | 9 Neptune  |   |
| 9   | 10 Mercury |   |

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B

| A   | B         | C |
|-----|-----------|---|
| No. | January   |   |
| 1   | February  |   |
| 2   | March     |   |
| 3   | April     |   |
| 4   | May       |   |
| 5   | June      |   |
| 6   | July      |   |
| 7   | August    |   |
| 8   | September |   |
| 9   | October   |   |
| 10  | November  |   |
| 11  | December  |   |

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C