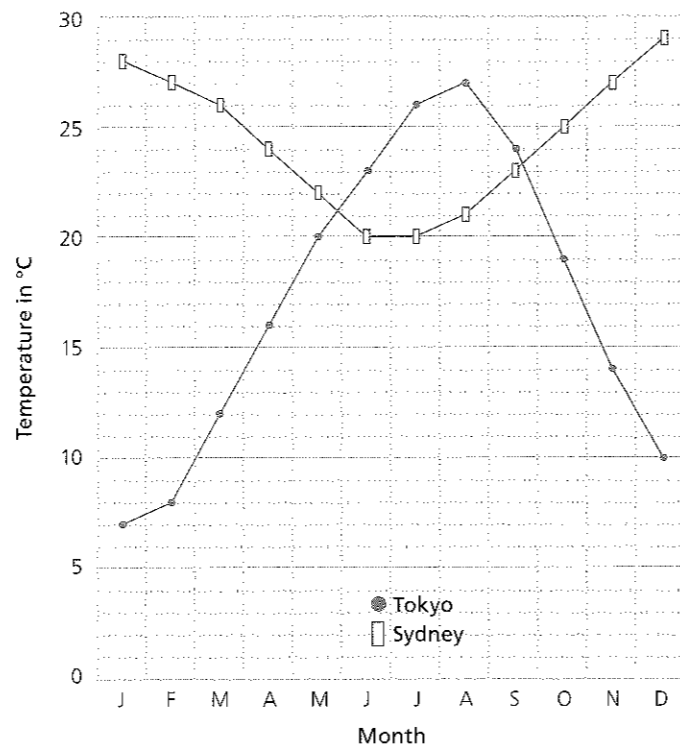


Graph of total monthly rainfall for Tokyo, Japan and Sydney, Australia



Graph of maximum monthly temperature for Tokyo, Japan and Sydney, Australia

Look carefully at the graphs above and answer the following questions.

- 26 Which is the wettest month in Sydney? April
- 27 Which month shows the greatest difference between the rainfall in Tokyo and the rainfall in Sydney? September
- 28 In which month is the rainfall in Tokyo and Sydney most nearly the same? April
- 29 How much rain falls in Tokyo during its driest month? 55mm
- 30 What is the range of rainfall in Sydney? 70mm
- 31 Which is the hottest month in Sydney? December
- 32 Which is the coldest month in Tokyo? January
- 33 Which month shows the greatest difference between the temperature in Tokyo and the temperature in Sydney? January
- 34 In which month is the maximum temperature in Tokyo and Sydney most nearly the same? September
- 35 What is the range of maximum temperature in Sydney? 9°C
- 36 What is the temperature in Tokyo during the wettest month? 24°C
- 37 Between which two months in Sydney is there no change in both rainfall and temperature? June, July
- 38 What is the mean maximum temperature in Tokyo during its hottest four-month period? 25°C
- 39 What is the total rainfall in Sydney during its four hottest months? 335mm
- 40 What is the total rainfall in Tokyo during its three coldest months? 185mm

- | A | Answer |
|----|--|
| 1 | What is the remainder when 323 is divided by 7? 1 |
| 2 | $(930 + 470) \div 14 =$ 100 |
| 3 | Write in digits eighty-nine hundred. 8900 |
| 4 | Express $\frac{1}{8}$ as a decimal. 0.125 |
| 5 | $3\frac{3}{4} \times 40 =$ 150 |
| 6 | $2.8 - 0.07 =$ 2.73 |
| 7 | $0.5 \times (2.5 + 7.2) =$ 4.85 |
| 8 | Round 5.0827496 to the nearest thousandth. 5.083 |
| 9 | Write 1286 correct to two significant figures. 1300 |
| 10 | If $a = 4$, $b = 5$ and $c = 6$, find the value of $a^2 + b^2 + c^2$. 77 |
| 11 | $5u + 11 = 46$ so $u =$ 7 |
| 12 | Write the next two terms of the sequence 100, 10, 1, 0.1, ... 0.01 0.001 |

- | B | Answer |
|----|---|
| 1 | I buy 16 slices of cheesecake at £2.75 each. How much change from £50? £6 |
| 2 | The price of a £9800 car rises by 6%. What is the new cost? £10388 |
| 3 | $2.54\text{cm} \approx 1\text{in}$. 75mm is approximately 3in |
| 4 | 40cm is approximately 16in |
| 5 | How many days inclusive from 15.10.2017 to 05.02.2018? 114d |
| 6 | In metres, find the distance travelled in 2min at a rate of 16m/s. 1920m |
| 7 | Find the diameter of a circle whose circumference is 157mm. 50mm |
| 8 | <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> </div> <div style="margin-right: 10px;"> </div> <div> <p>These are similar shapes (one is an enlargement of the other). Find x.</p> </div> </div> 0.6cm |
| 9 | <p>What is the number of axes of symmetry of this shape? 4</p> |
| 10 | Find the cost of six books at £4.95 each to the nearest £1. £30 |

- | C | Answer |
|----|--|
| 1 | Write down the corner coordinates of triangle A. (0, 0) (3, 2) (1, 4) |
| 2 | Triangle A is translated to position B. Write down the corner coordinates of the triangle when in position B. (5, 0) (8, 2) (6, 4) |
| 3 | What happens to the x-values of the coordinates of the triangle when it is translated to position B? increased by 5 |
| 4 | What happens to the y-values of the coordinates of the triangle when it is translated to position B? stay the same |
| 5 | Use your answers to questions 3 and 4 to complete the statement: the mapping $(x, y) \rightarrow (x + 5, y)$ translates triangle A to position B. |
| 6 | Write down the corner coordinates of the triangle when translated to position C. (0, 7) (3, 9) (1, 11) |
| 7 | Use your answer to question 6 to complete the statement: the mapping $(x, y) \rightarrow (x + 7, y)$ translates triangle A to position C. |
| 8 | Write down the corner coordinates of the triangle when translated to position D. (3, 4) (6, 6) (4, 8) |
| 9 | Complete the statement: The mapping $(x, y) \rightarrow (x + 3, y + 4)$ translates triangle A to position D. |
| 10 | Complete the statement: The mapping $(x, y) \rightarrow (x + 9, y + 3)$ translates triangle A to position E. |
| 11 | Triangle A is translated by the mapping of $(x, y) \rightarrow (x + 7, y + 8)$. Write down the values of the corner coordinates when the triangle is translated by this mapping to its new position. (7, 8) (10, 10) (8, 12) |
| 12 | On the grid above sketch in the new position of the triangle. |