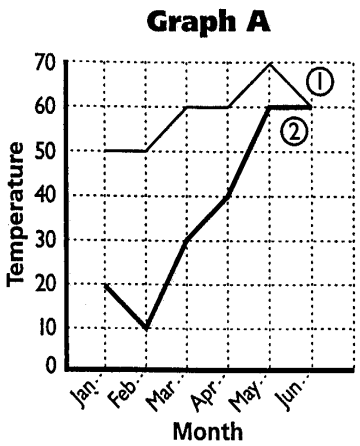
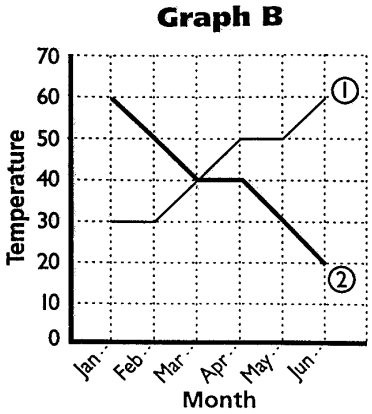
Permission Granted

THE RIGHT GRAPH (A)





Each graph shows the average monthly temperature in two cities for six months. It is never warmer in Salem than in Dover.

1. Which graph shows the average monthly temperatures in Salem and in Dover? Graph _____

2. Which line shows Salem's temperatures? Line _____

3. In which month is the temperature the same in both cities? _____
How does the graph show this?

4. In which city does the temperature vary more? _____

In January it is winter in Portsmouth, but summer in Sydney.

5. Which line represents Sydney's temperature? Line _____

6. Which month is coldest in Portsmouth? _____

7. Which city has an average temperature of 40° for six months? _____

8. In which month is the difference in the temperatures between the two cities the greatest? ____

Name.....

[Source: Groundworks Algebra Puzzles and Problems - Grade 7, Creative Publications, Inc.]

The Right Graph (A)

Goals

- Interpret double-line graphs.
- Compare graphs of linear relationships.
- Match line graphs to written descriptions of the same relationships.

Questions to Ask

- ***In Graph A which line represents the city with the warmer temperatures?*** (Line 1) ***How does the graph show this?*** (Line 1 is above Line 2 in every month except June, when the two lines meet.)
- ***In which month in Graph B did the two cities have the same average temperature?*** (March) ***How does the graph show this?*** (The two lines meet at this point.)

Solutions

1. Graph A – As the temperature increases, a line rises to show this. In Graph A, Line 1 is always above or at the same height as Line 2.
2. Line 2 – The line showing Dover's temperatures will always be above or at the same height as the line showing Salem's. Line 2 represents colder Salem.
3. June – The lines meet at this point.
4. Salem's temperature varies more. The distance between the least vertical and the greatest vertical height is greater for Line 2 than for Line 1.
5. Line 2 – Graph B shows the temperatures for Sydney and Portsmouth. The seasons for these two cities are different. For Line 1 the temperature increases from January to June. Line 2 temperatures decrease.
6. January and February are equally cold in Portsmouth.
7. Sydney – The mean temperature for Line 1: $(30 + 30 + 40 + 50 + 50 + 60) \div 6 = 43.3$. The mean temperature for Line 2: $(60 + 50 + 40 + 40 + 30 + 20) \div 6 = 40$.
8. June

[Source: Groundworks Algebra Puzzles and Problems - Grade 7, Creative Publications, Inc.]