

## Practice 7

Two exercises in this unit form one continuous text.

1 Complete the paragraph by writing *the* or – (no article) in each space.

### A Time series graphs

(1) ..... time-series graphs are popular with (2) ..... newspapers for suggesting and comparing (3) ..... trends. However, showing how a single quantity varies with (4) ..... time is not the same as showing how two quantities vary, and then suggesting a link between them.

(5) ..... graphs showing the variation of two things with (6) ..... time often use two different vertical scales. Figure 34 shows an example taken from a national newspaper.

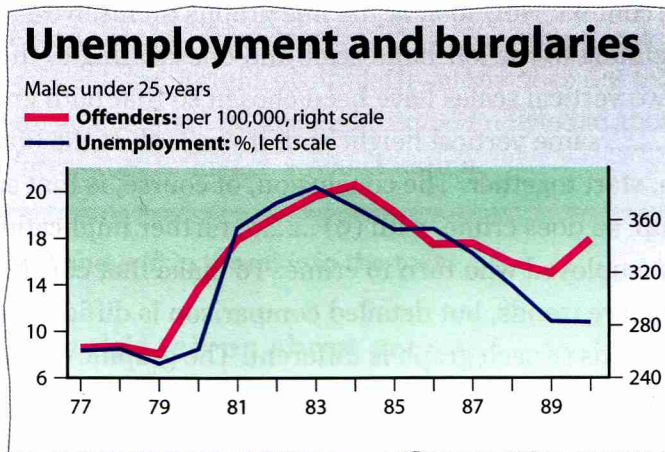


Figure 34: Unemployment and burglaries

This graph was included in a front-page article suggesting that there is a link between (7) ..... level of unemployment among (8) ..... young men and (9) ..... number of offenders committing (10) ..... burglaries. (11) ..... way the graph has been drawn seems unambiguously to support (12) ..... claim that when (13) ..... unemployment rises so does (14) ..... crime and, by virtue of (15) ..... closeness of (16) ..... shape of (17) ..... two curves, carries (18) ..... strong implication that indeed (19) ..... unemployment causes (20) ..... crime.

2 Complete the paragraph by writing *a* or *the* in each space.

**B Examining the data**

However, you should not jump to conclusions. First, look carefully at what Figure 34 shows and read out (1) *the* information that is actually there. Along the bottom, the scale represents the years 1977 to 1990. The vertical axis on the left-hand side shows the level of unemployment among men under 25 years old expressed as (2) ..... percentage. Notice that the scale divisions are 4%, except for the top one which is 2%, although this may be (3) ..... misprint and '20' should have been printed as '22'.

On (4) ..... right-hand side, the scale shows the number of offenders per 100,000. Note that the graph on its own does not make it clear just what this scale means. Is it (5) ..... number of offenders per 100,000 men under 25, or might it be (6) ..... number of offenders per 100,000 unemployed men under 25? The graph gives no clues, so you would have to look elsewhere for clarification, emphasizing the point that all graphs are part of (7) ..... wider context. Now look at the line graphs themselves. There are two lines, one relating to the left-hand scale and one relating to the right-hand scale. The two vertical scales have been chosen so that both graphs occupy roughly (8) ..... same vertical height and, if you look at the bottom left of the graph, start together. The conclusion, of course, is that as unemployment goes up, so does crime, with (9) ..... further implication being that it is the unemployed who turn to crime. To make that conclusion you are asked to compare trends, but detailed comparison is difficult because (10) ..... vertical axis of each graph is different. The graphic encourages you to think that there is (11) ..... strong causal link between two different trends, by (12) ..... visual impression created by the way it has been drawn.

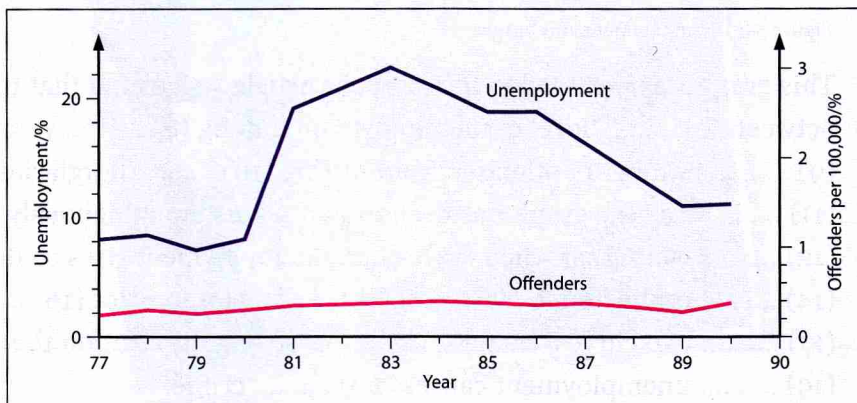


Figure 35: A different perspective

3 Complete the paragraph by writing *a/an, the* or – (no article) in each space.

### C Same data, different graph

Figure 35 shows (1) ~~the~~... the same data, with both vertical axes scaled in percentages. The left axis still shows (2) ..... percentage level of unemployment, but now the right axis shows the number of (3) ..... offenders expressed as (4) ..... percentage. You could argue that this graph tells (5) ..... different story – that (6) ..... level of crime is hardly affected by unemployment. In spite of a significant increase in (7) ..... joblessness between 1979 and 1983, the number of offenders increased by under 0.2%. Even the original graph starts to tell (8) ..... different story towards the end of the 1980s, revealing that in 1990 the level of unemployment had fallen almost to the level of 1980, while (9) ..... crime was not far below its 1984 peak. The strong visual impression of the two overlaid graphs and (10) ..... apparent close match between 1977 and 1983 works to divert (11) ..... attention from (12) ..... last years of the decade. What the graphic actually shows is two separate time-series graphs that have been drawn in the same place. There may be (13) ..... causal link between crime and unemployment, but graphical similarity alone does not tell you about (14) ..... cause. For that you need additional knowledge about (15) ..... factors and forces that influence a real situation.

4 Put *the* (twice) and *a* (five times) into the text.

### D What does this tell us about graphs?

Comparing trends requires notion that variables plotted against time are somehow related, but any such relationship must be established elsewhere – graph itself cannot do it. Graph is presentational device, and all it can do is display data in chosen format. Graphs are drawn by people, and it is people who decide what graph shows and how it shows it. There is nothing inevitable about graph.