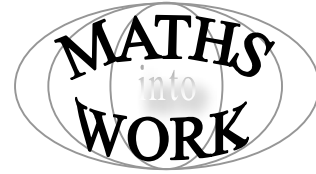


Maths into Work Project

Emergency Calls



Background

A Regional Police Force is divided into Four *Divisions* based on the geography of the Region. Within South Division there are five *Sections* based on the five major towns. Within each *Section* police officers work in teams.

If you make an emergency call the operator first of all decides whether yours is an *immediate response incident*. If it is an *immediate response incident* the time taken for a Police Officer to arrive at the scene is recorded.

A key performance measure of how efficient the police are is whether these incidents are dealt with within target times.

A Police Inspector gets the data about his Division's response times and uses a spreadsheet to see how his teams are doing.



Immediate Response Incidents

Targets:

10 minutes in urban areas

20 minutes in rural areas

National target 88% within target times

Data and interview

	A	B	C	D	E	F	G
34	190	69	46	19	4	65	0.71
35	191	22	10	11	1	21	0.48
36	192	25	20	4	1	24	0.83
37	193	53	52	1	0	53	0.98
38	194	64	53	9	2	62	0.85
39	195	83	79	1	3	80	0.99
40	Town A	316	260	45	11	305	0.85

Police Inspector:

so we get the team [indicating column A the different teams are numbered 190, 191, 192 and so on in Town A],

how many calls were received [indicating column B], right?

How many were on time [indicating column C], yes?

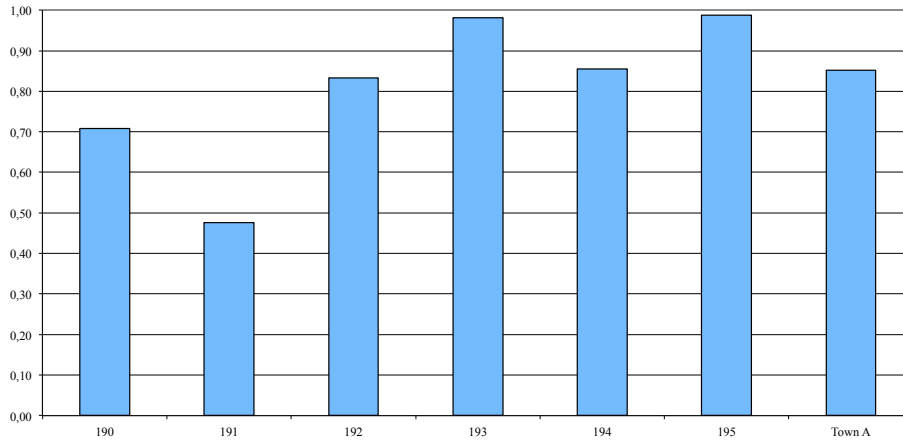
How many were not on time [indicating column D],

and how many were discounted (maybe false alarms) [indicating column E]. ...

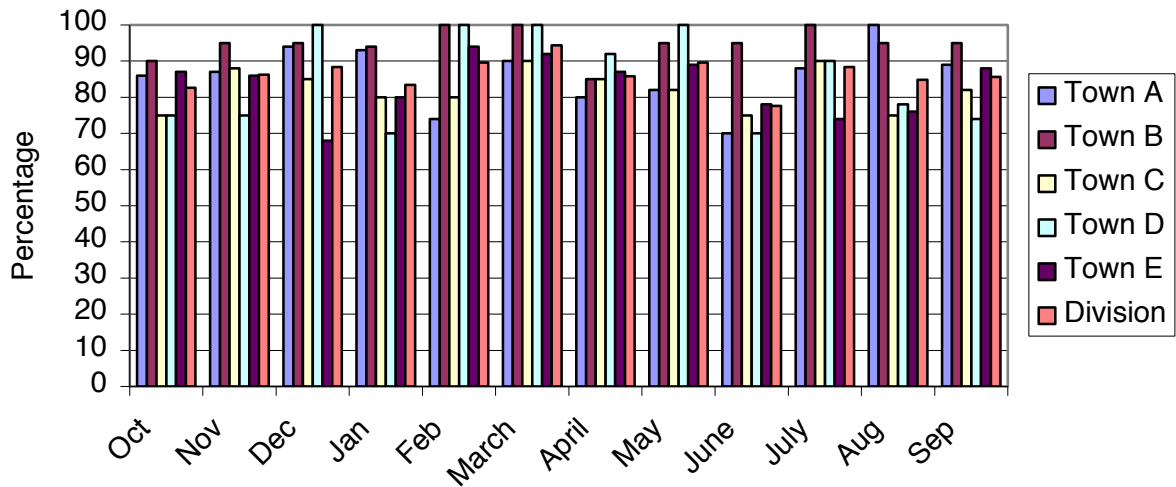
Display

The Police Inspector displays the results using bar charts.

Percentage of emergency calls responded to within target time



Emergency call success rate



Task:

Read through all the information so that you can explain:

- the calculations that are carried out by the spreadsheet
- the formulae you would use in columns F and G and row 40 in the spreadsheet
- why the success rates of the different Teams and Sections may be different

Explain how you would calculate the average success rate for the whole division for one month.

