

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

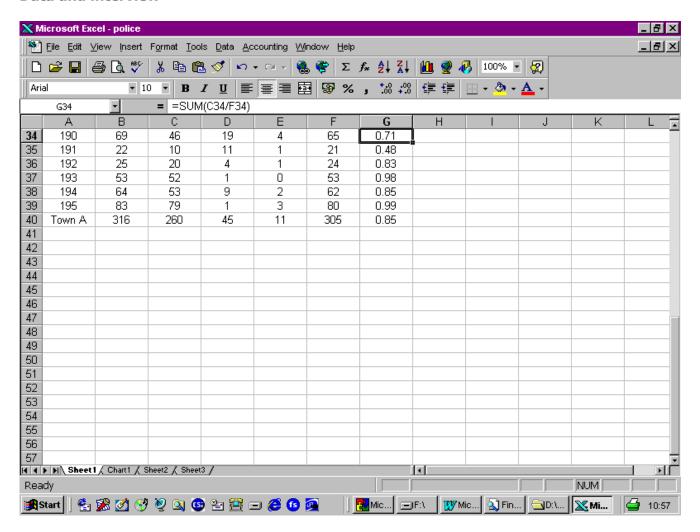
National target 88% within target times

Task:

- 1. the calculations that are carried out by the spreadsheet
- 2. the formulae you would use in columns F and G and row 40 in the spreadsheet
- 3. why the success rates of the different Teams and Sections may be different
- 4. Explain how you would calculate the average success rate for the whole division for one month.







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?

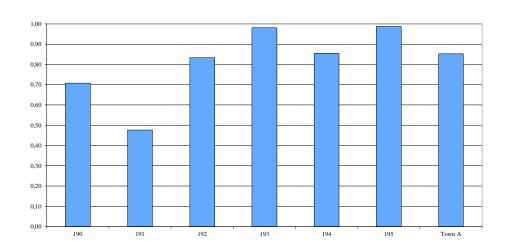
How many were not on time [indicating column D],

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

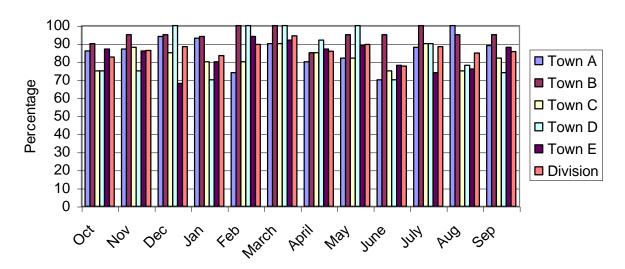


The Police Inspector displays the results using bar charts.

Percentage of emergency calls responded to within target tim



Emergency call success rate



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

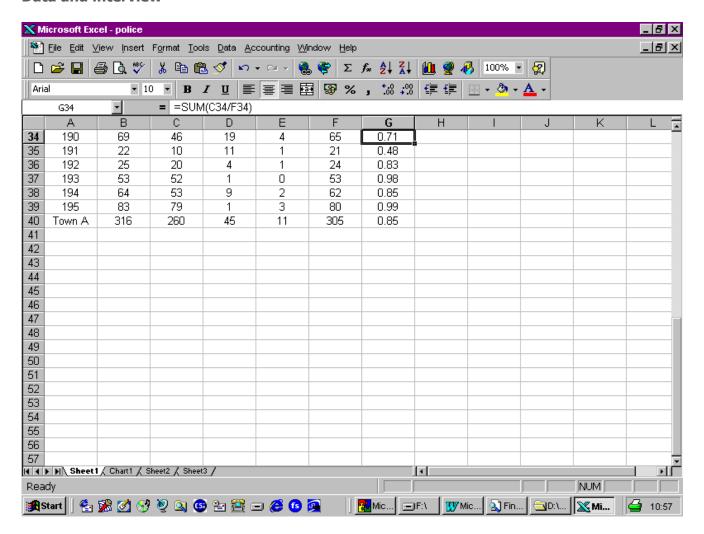
20 minutes in rural areas

National target 88% within target times

Task:

- 1. the calculations that are carried out by the spreadsheet
- 2. the formulae you would use in columns F and G and row 40 in the spreadsheet
- 3. why the success rates of the different Teams and Sections may be different
- 4. Explain how you would calculate the average success rate for the whole division for one month.





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?

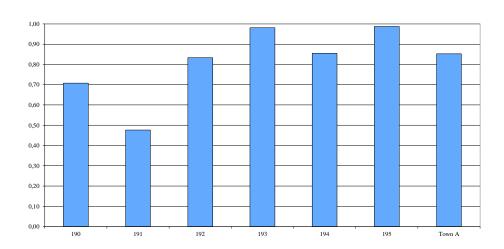
How many were not on time [indicating column D],

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

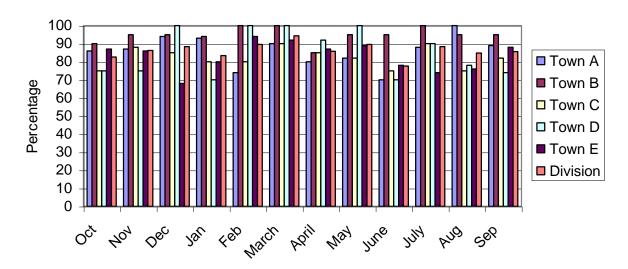


The Police Inspector displays the results using bar charts.

Percentage of emergency calls responded to within target tim



Emergency call success rate



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

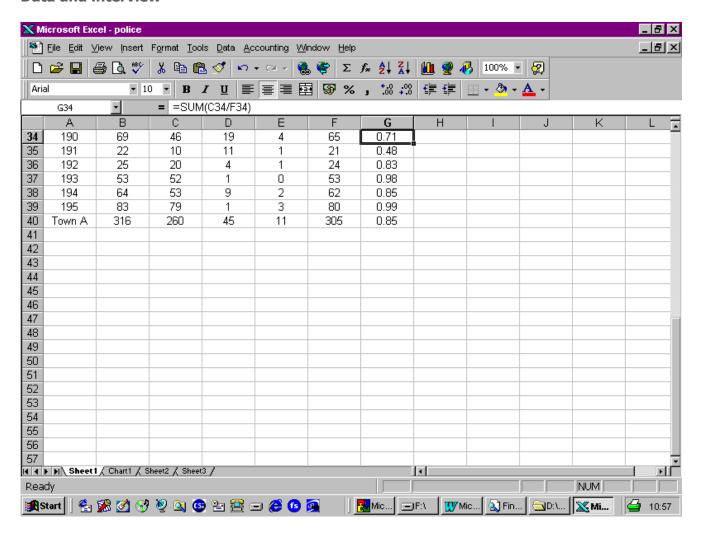
20 minutes in rural areas

National target 88% within target times

Task:

- 1. the calculations that are carried out by the spreadsheet
- 2. the formulae you would use in columns F and G and row 40 in the spreadsheet
- 3. why the success rates of the different Teams and Sections may be different
- 4. Explain how you would calculate the average success rate for the whole division for one month.





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?

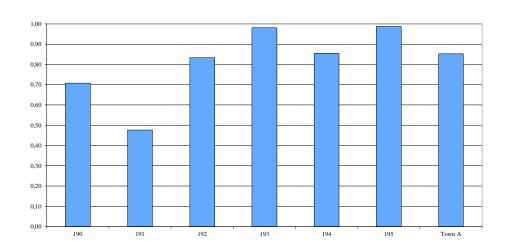
How many were not on time [indicating column D],

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

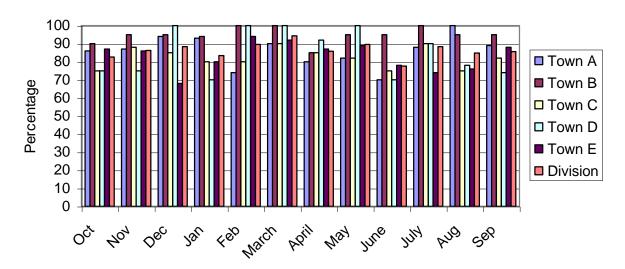


The Police Inspector displays the results using bar charts.

Percentage of emergency calls responded to within target tim



Emergency call success rate



Emergency Calls:

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:

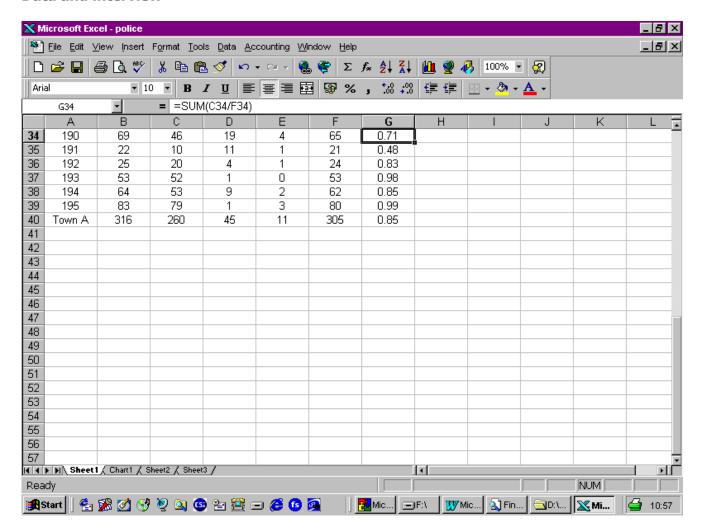
10 minutes in urban areas 20 minutes in rural areas

National target 88% within target times

Task:

- 5. the calculations that are carried out by the spreadsheet
- 6. the formulae you would use in columns F and G and row 40 in the spreadsheet
- 7. why the success rates of the different Teams and Sections may be different
- 8. Explain how you would calculate the average success rate for the whole division for one month.





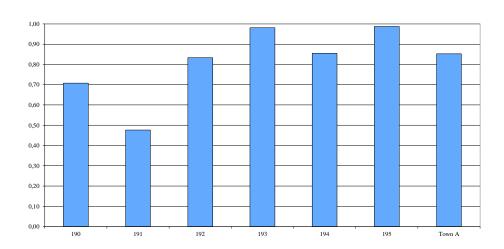
Police Inspector.

- 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].



The Police Inspector displays the results using bar charts.

Percentage of emergency calls responded to within target time



Emergency call success rate

