

Strand E *STATISTICS*

## Introductory Problems

We have developed a number of problems that are related to the concepts in this strand. You can use these as an introduction to the work that follows and we recommend that you work on them with colleagues.

The problems are designed to encourage mathematical thinking. You can also use them with your classes.

1. Three teams, A, B and C, took part in a marathon race. Each team had 10 runners.

The results are given in the chart below.

Position	1	2	3	4	5	6	7	8	9	10
Team	A	B	A	C	B	B	C	A	C	C
Position	11	12	13	14	15	16	17	18	19	20
Team	C	B	A	A	B	B	C	A	C	B
Position	21	22	23	24	25	26	27	28	29	30
Team	C	B	B	A	C	A	A	A	C	B

Find as many ways as you can for deciding which team won

2. In an ice skating competition Jenna and Kim were the top two competitors.

The five judges gave them the following scores.

	<i>Judge 1</i>	<i>Judge 2</i>	<i>Judge 3</i>	<i>Judge 4</i>	<i>Judge 5</i>
Jenna	8	6	10	9	7
Kim	9	9	7	8	7

- a) Give a reason why Jenna might have been declared the winner.
- b) Why might Kim think that she should have won?
3. Mike is growing two different varieties of tomato plants in his greenhouse. During one week, he keeps a record of the number of tomatoes he picks from each type of plant and notes the data in a table.

Day	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Variety A	5	5	4	1	0	2	5
Variety B	5	3	3	3	7	9	6

Compare the two sets of data. Which variety do you think is best and why?