

**Principles of Mathematics Grade 10: Statistics and Probability
An Item-Level Analysis (Provincial Level)**

British Columbia

All schools

June/2007

Provincial Principles of Mathematics 10 Item-Level Response Reports include data for all BC students who wrote the exam in June 2007 (about 26,530 students). Both public and independent schools are included. The Principles of Mathematics 10 June 2007 provincial Item-Level Response Report displays the proportion of students who made errors on each exam item of this specific curriculum organizer: Statistics and Probability.

Click [here](#) to view the Prescribed Learning Outcomes

Form	Item #	Question type	Prescribed Learning Outcomes	Number of Students who Responded to the Item	Percentage of Students who Answered Incorrectly	Specific Curricular Aspect that Needs Attention [$>20\%$ selected incorrect response]
A	1	MC	E1	4841	23	*
B	1	MC	E1	4275	57	<ul style="list-style-type: none"> Students did not understand the concept of convenience sampling.
C	1	MC	E1	4366	19	N/A
C	2	MC	E2	4369	64	<ul style="list-style-type: none"> Students did not recognize that a survey had a question bias.
D	1	MC	E1	4827	64	<ul style="list-style-type: none"> Students did not understand the concept of clustered sampling. Students did not understand the concept of simple random sampling.
D	2	MC	E2	4829	44	<ul style="list-style-type: none"> Students did not recognize a survey question that

						could not lead to a response bias.
E	1	MC	E1	3996	24	*
F	1	MC	E1	4195	64	<ul style="list-style-type: none"> • Students did not understand the concept of simple random sampling. • Students did not understand the concept of systematic sampling.
F	2	MC	E2	4198	55	<ul style="list-style-type: none"> • Students thought a survey had a selection bias although it was administered to all possible respondents.

Notes:

- (1) A description of the misconception is given when more than 20% of students answered the item incorrectly (i.e. selected a distractor).
- (2) '**N/A**' indicates that fewer than 20% of students answered the item incorrectly. Therefore, no description is provided.
- (3) '*' indicates that more than 20% of students answered the item incorrectly, but no single distractor was selected by more than 20% of the students. Therefore, no description is provided.