

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

**British Columbia**

**All schools**

**June/2006**

Provincial Principles of Mathematics 10 Item-Level Response Reports include data for all BC students who wrote the exam in June 2006 (about 26,450 students). Both public and independent schools are included. The Principles of Mathematics 10 June 2006 provincial Item-Level Response Report displays the proportion of students who made errors on each exam item (MC, MT or TF) of this specific curriculum organizer - Statistics and Probability. A description of the misconception is given when more than 20% of students selected the incorrect response.

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	4	MC	E2	4582	34	<ul style="list-style-type: none"> <li>Students failed to realize that the two events were not mutually exclusive. Students failed to recognize that the percentage support does not necessarily correlate to how many people will come to the event. Students correctly decided that one of the eve</li> </ul>
A	5	TF	E1	4587	47	<ul style="list-style-type: none"> <li>Students did not understand the stratified sampling technique of data gathering.</li> </ul>
B	1	MC	E1	3816	69	<ul style="list-style-type: none"> <li>Students did not understand the concept of clustered sampling.</li> <li>Students did not understand the concept of simple random sampling.</li> </ul>

						<ul style="list-style-type: none"> <li>Students did not understand the concept of systematic sampling.</li> </ul>
B	2	MC	E2	3817	83	<ul style="list-style-type: none"> <li>Students did not understand the concept of a bias in a survey.</li> <li>Students did not understand the concept of a non-response bias.</li> </ul>
C	12	MC	E1	4547	46	<ul style="list-style-type: none"> <li>Students did not understand the concept of stratified sampling.</li> </ul>
C	13	MC	E2	4552	38	*
D	5	TF	E1	4729	27	<ul style="list-style-type: none"> <li>Students did not understand the concept of a cluster sampling technique.</li> </ul>
D	6	MC	E2	4729	45	*
E	4	MC	E2	4209	31	*
E	5	TF	E1	4211	45	<ul style="list-style-type: none"> <li>Students did not understand the stratified sampling technique of data gathering.</li> </ul>
F	1	MC	E1	4542	49	<ul style="list-style-type: none"> <li>Students did not understand the concept of a Convenience Sample.</li> </ul>
F	2	MC	E2	4537	41	<ul style="list-style-type: none"> <li>Students did not understand the relationship between a sample and the population in a survey.</li> </ul>
F	3	MC	E1	4543	17	N/A

Note: '\*' indicates that there was no specific curricular aspect that needed attention; 'N/A' indicates that there were fewer than 20% of the students who incorrectly answered the item, hence, no curricular note is reported.