

## Principles of Mathematics 10: Number Item-Level Response Report (Provincial Level)

**British Columbia**

**All Schools**

**June/2009**

Provincial Principles of Mathematics 10 Item-Level Response Reports include data for all BC students who wrote the exam in June 2009 (about 26,355 students). Both public and independent schools are included. The Principles of Mathematics 10 June 2009 provincial Item-Level Response Report displays the proportion of students who made errors on each exam item of this domain: Number.

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	A1	26338	27%	*
A	2	MC	A2	26337	70%	<ul style="list-style-type: none"> <li>Students did not know that an integer does not have decimals.</li> </ul>
A	3	MC	A4	26307	12%	<ul style="list-style-type: none"> <li>N/A</li> </ul>
A	4	MC	A4	26259	23%	*
A	5	MC	A4	26338	29%	*
A	6	MC	A4	26193	56%	<ul style="list-style-type: none"> <li>Students recognized the need to rationalize the denominator of a fraction involving radicals, but made a sign error.</li> </ul>

A	8	MC	A4	25979	58%	<ul style="list-style-type: none"> <li>In a problem involving two right triangles with a common height, students applied the Pythagorean Theorem to determine the height and the base, but then calculated the perimeter of the triangle instead of the area.</li> </ul>
A	9	MC	A5	26347	26%	*
A	10	MC	A5	25979	36%	*
A	11	MC	A5	26258	47%	*
A	12	MC	A6	26237	73%	<ul style="list-style-type: none"> <li>When simplifying a product of powers involving fractional exponents, students did not distribute the exponent to the coefficient in the bracket.</li> <li>When simplifying a product of powers involving fractional exponents, students incorrectly applied an exponent to both variable and coefficient.</li> </ul>
A	13	MC	A6	26237	59%	<ul style="list-style-type: none"> <li>Students correctly multiplied two monomials involving exponents and radicals, but thought that a negative exponent means to take the reciprocal of the fractional exponent.</li> </ul>
A	14	MC	A6	26180	51%	<ul style="list-style-type: none"> <li>When simplifying a power involving rational exponents and radicals, students added two of the exponents rather than multiplying.</li> </ul>

**Note:**

(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.