

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

British Columbia

All Schools

June/2008

Provincial Principles of Mathematics 10 Item-Level Response Reports include data for all BC students who wrote the exam in June 2008 (about 26,690 students). Both public and independent schools are included. The Principles of Mathematics 10 June 2008 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	26683	25	*
A	2	MC	A2	26621	58	<ul style="list-style-type: none"> Students did not recognize that rational numbers include fractions and some cannot be reduced to integers. Students did not recognize that when dividing two integers the result is not always an integer.
A	3	MC	A5	26662	32	*
A	4	MC	A5	26654	43	*
A	5	MC	A6	26613	61	<ul style="list-style-type: none"> Students correctly applied a fractional exponent to a monomial, but made a sign error. Students correctly raised the variable in a monomial to a power, but multiplied the coefficient with the exponent instead of raising

						also the coefficient to the power.
A	6	MC	A6	26620	35	<ul style="list-style-type: none"> When multiplying two powers with the same base, students multiplied instead of adding the exponents.
A	8	MC	A6	26415	67	<ul style="list-style-type: none"> Students correctly divided a binomial by a monomial, but incorrectly simplified the final binomial writing it as a monomial by adding the powers. When dividing a binomial by a monomial, students incorrectly simplified the binomial writing it as a monomial by adding the powers, and next divided.
A	9	MC	A4	26654	33	*
A	10	MC	A4	26650	18	N/A
A	11	MC	A4	26575	49	<ul style="list-style-type: none"> When expanding a binomial squared with radicals, students incorrectly simplified the square roots with the power and subtracted the two terms.
A	12	MC	A4	26578	43	<ul style="list-style-type: none"> When simplifying a fraction involving radicals, students recognized the need to rationalize the denominator, but ignored a radical in the denominator.
A	13	MC	A4	26523	44	<ul style="list-style-type: none"> When rationalizing a binomial denominator, students correctly multiplied the fraction by the conjugate but made an error when reducing the result.

A	14	MC	A4	26392	61	<ul style="list-style-type: none"> When asked to calculate the area of a circle circumscribing a square, students found the length of a side of the square and multiplied it by π.
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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.