



**Indiana
Department of Education**

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Indiana Superintendent of Public Instruction

ISTEP+ Guidance: How to Respond to Gridded- Response Questions

Mathematics, Grades 3-8 & 10

Purpose

To prepare students to correctly record their answers on gridded-response test items.

To answer common questions regarding gridded-response test item scoring.

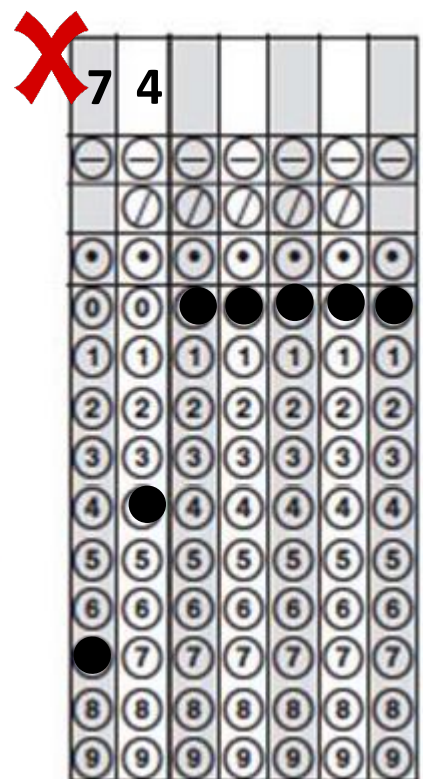
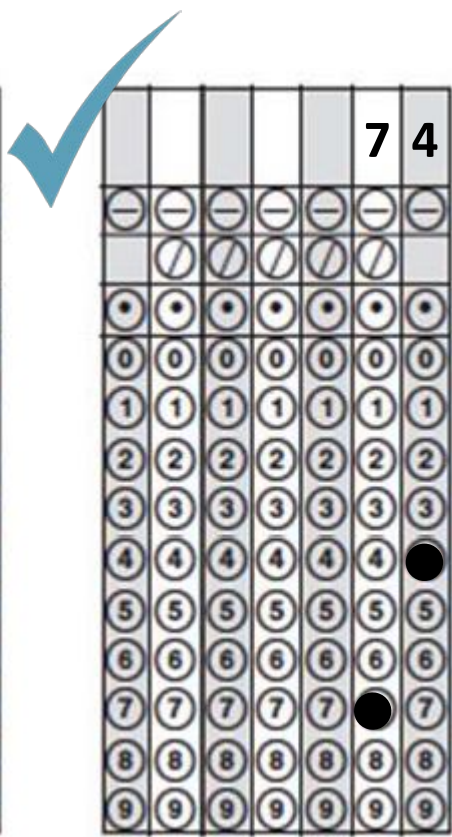
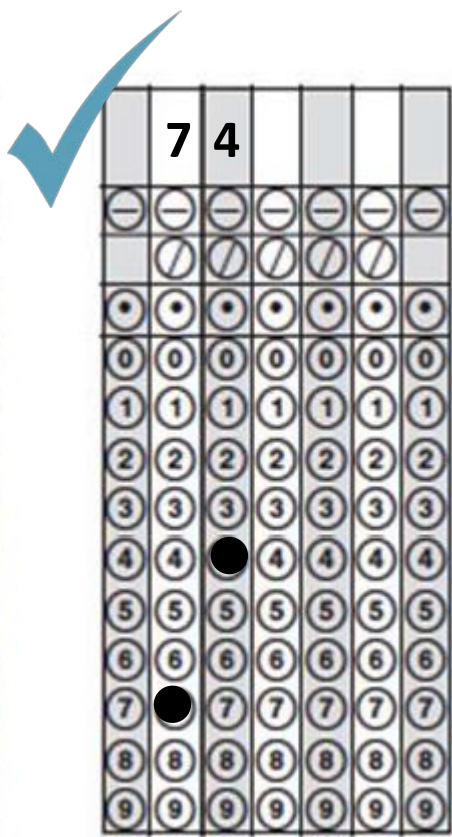
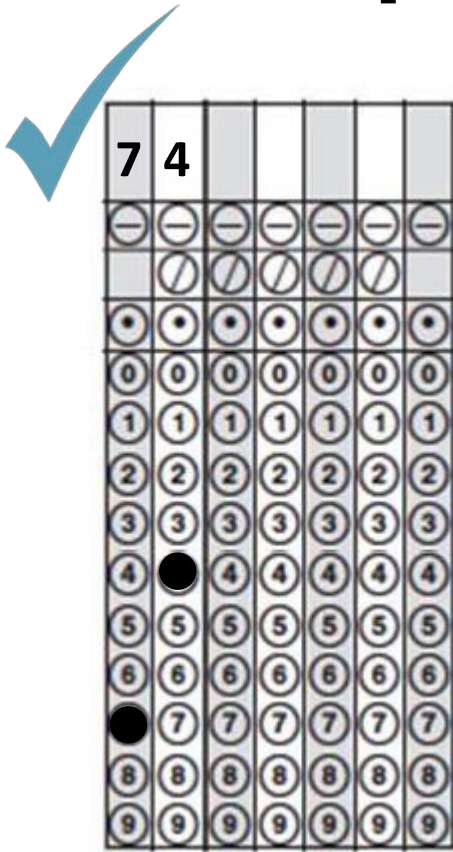
Response Grid

Write answer here,
one digit or symbol
per box.

⊖	⊖	⊖	⊖	⊖	⊖	⊖
	⊘	⊘	⊘	⊘	⊘	
•	•	•	•	•	•	•
0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9

Fill in the bubble
which corresponds
to the digit or
symbol written at
the top of the
column.

Response Examples: Location



A student answer may be recorded on any location across the grid.

Do not fill in placeholders below fields left blank.

Response Examples: Fractions



2	/	5				
-	-	-	-	-	-	-
	●	/	/	/	/	
•	•	•	•	•	•	•
0	0	0	0	0	0	0
1	1	1	1	1	1	1
●	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	●	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9



4	/	1	0			
-	-	-	-	-	-	-
	●	/	/	/	/	
•	•	•	•	•	•	•
0	0	0	●	0	0	0
1	1	●	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
●	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9



2	-	5				
-	●	-	-	-	-	-
	/	/	/	/	/	
•	•	•	•	•	•	•
0	0	0	0	0	0	0
1	1	1	1	1	1	1
●	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	●	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9

2/5 and 4/10 would both be accepted as correct answers for a question because they are equivalent fractions.

Do not attempt to use the negative symbol as a fraction line.

Response Examples: Mixed Numbers



5	/	3				
⊖	⊖	⊖	⊖	⊖	⊖	⊖
●	⊘	⊘	⊘	⊘		
⊙	⊙	⊙	⊙	⊙	⊙	⊙
0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	●	3	3	3	3
4	4	4	4	4	4	4
●	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9

For the answer 1 and 2/3, an improper fraction must be created and entered.




1		2	/	3		
⊖	⊖	⊖	⊖	⊖	⊖	⊖
⊘	⊘	⊘	●	⊘	⊘	
⊙	⊙	⊙	⊙	⊙	⊙	⊙
0	0	0	0	0	0	0
●	1	1	1	1	1	1
2	2	●	2	2	2	2
3	3	3	3	●	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9




1	2	/	3			
⊖	⊖	⊖	⊖	⊖	⊖	⊖
⊘	⊘	●	⊘	⊘	⊘	
⊙	⊙	⊙	⊙	⊙	⊙	⊙
0	0	0	0	0	0	0
●	1	1	1	1	1	1
2	●	2	2	2	2	2
3	3	3	●	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9

Do not attempt to enter a mixed number into the grid in any way. These responses for 1 and 2/3 would be scored as incorrect.


Response Examples: Decimals




2					
⊖	⊖	⊖	⊖	⊖	⊖
/	/	/	/	/	/
•	•	•	•	•	•
0	0	0	0	0	0
1	1	1	1	1	1
●	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9




2	.	0			
⊖	⊖	⊖	⊖	⊖	⊖
/	/	/	/	/	/
•	●	•	•	•	•
0	0	●	0	0	0
1	1	1	1	1	1
●	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9



0	2	.	0	0	0
⊖	⊖	⊖	⊖	⊖	⊖
/	/	/	/	/	/
•	•	●	•	•	•
●	0	0	●	●	0
1	1	1	1	1	1
2	●	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7
8	8	8	8	8	8
9	9	9	9	9	9



				0	.	2
⊖	⊖	⊖	⊖	⊖	⊖	⊖
/	/	/	/	/	/	/
•	•	•	•	•	●	•
0	0	0	0	●	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	●
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7




					.	2
⊖	⊖	⊖	⊖	⊖	⊖	⊖
/	/	/	/	/	/	/
•	•	•	•	•	●	•
0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	●
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9


Leading zeros before a decimal point are optional. Trailing zeros after a decimal do not change the scoring of the student answer.

Moving a digit behind the decimal point will change the student answer and will be scored as incorrect.

Response Examples: Decimals



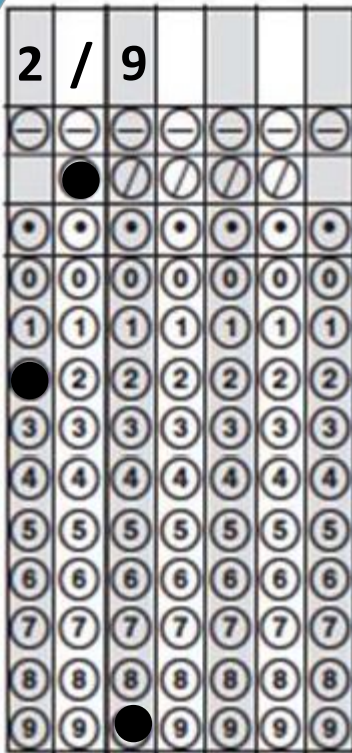
.	8					
⊖	⊖	⊖	⊖	⊖	⊖	⊖
	/	/	/	/	/	
●	•	•	•	•	•	•
0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	●	8	8	8	8
9	9	9	9	9	9	9



0	.	8				
⊖	⊖	⊖	⊖	⊖	⊖	⊖
	/	/	/	/	/	
•	●	•	•	•	•	•
●	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	●	8	8	8	8
9	9	9	9	9	9	9

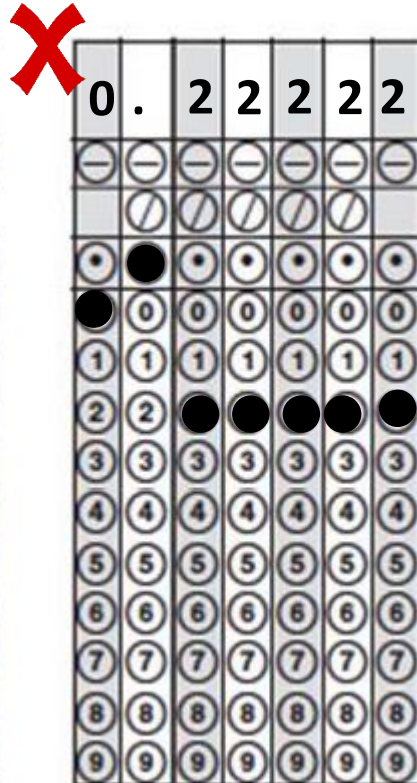
Leading zeros before a decimal point are optional.

Response Examples: Repeating Decimals



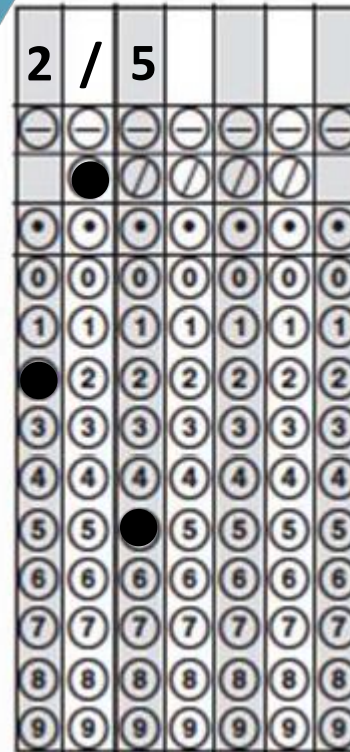
A calculator keypad showing the input $2 / 9$. The display shows a repeating decimal $0.\overline{2222}$. The keypad has a blue checkmark to its left.

Record repeating decimals such as 0.2 repeating as their equivalent fractions.



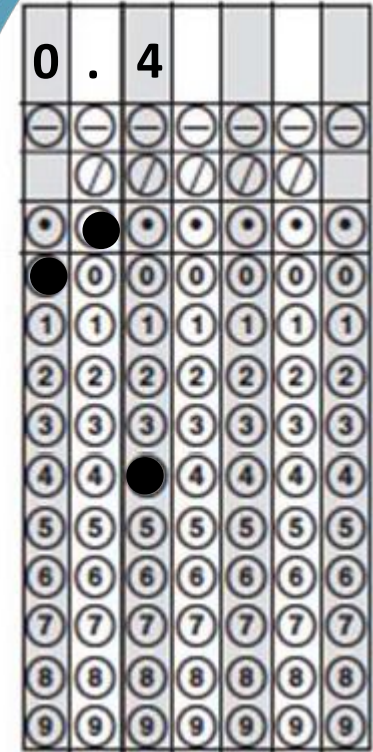
A calculator keypad showing the input 0.2222 . The display shows 0.2222 . A red 'X' is placed to the left of the keypad.

Do not attempt to record a repeating decimal as a decimal.




A calculator keypad showing the input $2 / 5$. The display shows a terminating decimal 0.4 . The keypad has a blue checkmark to its left.

A terminating decimal may be recorded as either the decimal or the equivalent fraction.




A calculator keypad showing the input 0.4 . The display shows 0.4 . The keypad has a blue checkmark to its left.


Response Examples: Negatives




-	7	.	2	5		
●	○	○	○	○	○	○
	○	○	○	○	○	
○	○	●	○	○	○	○
0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	●	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	●	5	5
6	6	6	6	6	6	6
7	●	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9



-	2	/	9			
●	○	○	○	○	○	○
	○	●	○	○	○	
○	○	○	○	○	○	○
0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	●	2	2	2	2	2
3	3	3	3	3	3	3
4	4	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	●	9	9	9



-	4	9				
●	○	○	○	○	○	○
	○	○	○	○	○	
○	○	○	○	○	○	○
0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	●	4	4	4	4	4
5	5	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	●	9	9	9	9



4	5	-				
○	○	●	○	○	○	○
	○	○	○	○	○	
○	○	○	○	○	○	○
0	0	0	0	0	0	0
1	1	1	1	1	1	1
2	2	2	2	2	2	2
3	3	3	3	3	3	3
4	●	4	4	4	4	4
5	●	5	5	5	5	5
6	6	6	6	6	6	6
7	7	7	7	7	7	7
8	8	8	8	8	8	8
9	9	9	9	9	9	9

To record a negative answer, enter the negative sign before any answer.

Do not place the negative sign at the end or in the middle of an answer.

Questions

- Please contact the following staff members if you have questions regarding Mathematics:
 - Mary Williams, Grades 3-5, at mwilliams@doe.in.gov.
 - Joe Staten, Grades 6-8 and 10, at jstaten@doe.in.gov.
- For other questions, please contact the Office of Student Assessment by calling (317) 232-9050 or via email at INassessments@doe.in.gov.



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