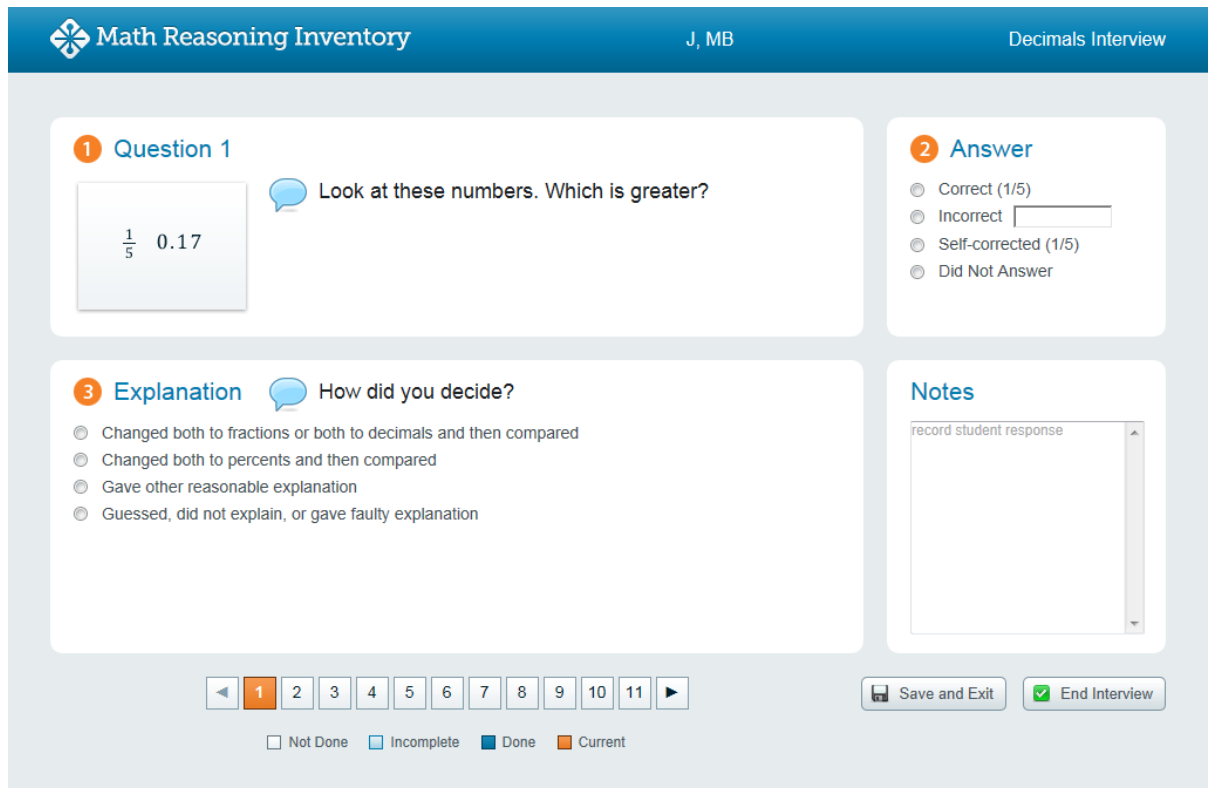


Decimals

Interview Screens

These are the questions as they appear on the computer screen. It's helpful preparation to review the questions, prompts, and explanations before interviewing students.



The screenshot shows the 'Decimals Interview' interface. At the top, it says 'Math Reasoning Inventory' and 'J, MB'. The main content is divided into four panels:

- 1 Question 1:** A box contains $\frac{1}{5}$ and 0.17. A speech bubble says 'Look at these numbers. Which is greater?'.
- 2 Answer:** Radio buttons for 'Correct (1/5)', 'Incorrect' (with a text input field), 'Self-corrected (1/5)', and 'Did Not Answer'.
- 3 Explanation:** A speech bubble says 'How did you decide?'. Below are four radio button options:
 - Changed both to fractions or both to decimals and then compared
 - Changed both to percents and then compared
 - Gave other reasonable explanation
 - Guessed, did not explain, or gave faulty explanation
- Notes:** A text area with the placeholder 'record student response'.

At the bottom, there is a navigation bar with buttons 1 through 11, where 1 is highlighted. To the right are 'Save and Exit' and 'End Interview' buttons. Below the navigation bar are checkboxes for 'Not Done', 'Incomplete', 'Done', and 'Current'.

Decimals Interview Question 1 of 11

1 Question 2

0.32 2.1 0.185

Look at these numbers. Which is smallest?

2 Answer

- Correct (0.185)
- Incorrect
- Self-corrected (0.185)
- Did Not Answer

3 Explanation How did you decide?

- Added zeros and then compared
- Changed to fractions and then compared
- Evaluated place value from greatest to least
- Converted to percents
- Gave other reasonable explanation
- Guessed, did not explain, or gave faulty explanation

Notes

record student response

◀ 1 2 3 4 5 6 7 8 9 10 11 ▶

Save and Exit End Interview

Not Done Incomplete Done Current

Decimals Interview Question 2 of 11

1 Question 3

$\frac{4}{5}$ 0.503 0.7

Look at these numbers. Which is greatest?

2 Answer

- Correct (4/5)
- Incorrect
- Self-corrected (4/5)
- Did Not Answer

3 Explanation How did you decide?

- Changed to all fractions, decimals, or percents and then compared
- Compared to 1/2 or 1
- Gave other reasonable explanation
- Guessed, did not explain, or gave faulty explanation

Notes

record student response

◀ 1 2 3 4 5 6 7 8 9 10 11 ▶

Save and Exit End Interview

Not Done Incomplete Done Current

Decimals Interview Question 3 of 11

1 Question 4

$$3 - 1.9$$

Solve this problem.

2 Answer

- Correct (1.1)
- Incorrect
- Self-corrected (1.1)
- Did Not Answer

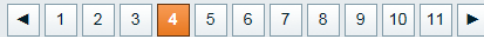
3 Explanation

How did you figure out the answer?

- Used standard algorithm to subtract
- Subtracted 3 - 1 and then 2 - 0.9
- Subtracted 2 - 1.9 and then added 1
- Added up (e.g., 1.9 + 0.1 and then 2 + 1)
- Gave other reasonable explanation
- Guessed, did not explain, or gave faulty explanation

Notes

record student response



Not Done Incomplete Done Current

Save and Exit

End Interview

Decimals Interview Question 4 of 11

1 Question 5

$$0.65 + \underline{\quad} = 1.6$$

Figure out the missing number.

2 Answer

- Correct (0.95)
- Incorrect
- Self-corrected (0.95)
- Did Not Answer

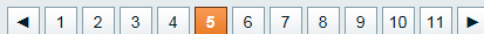
3 Explanation

How did you figure out the answer?

- Used standard algorithm to subtract
- Subtracted without using the standard algorithm (e.g., 1.6 - 0.60 and then 1 - 0.05)
- Added up (e.g., 0.65 + 0.35 and then 1 + 0.6)
- Gave other reasonable explanation
- Guessed, did not explain, or gave faulty explanation

Notes

record student response



Not Done Incomplete Done Current

Save and Exit

End Interview

Decimals Interview Question 5 of 11

1 Question 6

$$3.9 \times 4.85$$

10 15 20 25

For this multiplication problem, don't figure out the exact answer. Decide which of these choices is the best estimate: 10, 15, 20, or 25?

2 Answer

- Correct (20)
- Incorrect
- Self-corrected (20)
- Did Not Answer

3 Explanation How did you decide?

- Used standard algorithm to multiply
- Rounded and then multiplied
- Gave other reasonable explanation
- Guessed, did not explain, or gave faulty explanation

Notes

record student response

◀ 1 2 3 4 5 6 7 8 9 10 11 ▶

Not Done Incomplete Done Current

Save and Exit End Interview

Decimals Interview Question 6 of 11

1 Question 7

$$12.6 \times 10$$

Solve this problem.

2 Answer

- Correct (126)
- Incorrect
- Self-corrected (126)
- Did Not Answer

3 Explanation How did you figure out the answer?

- Used standard algorithm to multiply
- Used rule of adjusting the decimal point to multiply by 10
- Multiplied 12×10 and 0.6×10
- Gave other reasonable explanation
- Guessed, did not explain, or gave faulty explanation

Notes

record student response

◀ 1 2 3 4 5 6 7 8 9 10 11 ▶

Not Done Incomplete Done Current

Save and Exit End Interview

Decimals Interview Question 7 of 11

Math Reasoning Inventory J, MB Decimals Interview

1 Question 8 Solve this problem.

$163.4 \div 10$

2 Answer

- Correct (16.34)
- Incorrect
- Self-corrected (16.34)
- Did Not Answer

3 Explanation How did you figure out the answer?

- Used standard algorithm to divide
- Used rule of adjusting the decimal point to divide by 10
- Used multiplication (e.g., $10 \times 16.34 = 163.4$)
- Gave other reasonable explanation
- Guessed, did not explain, or gave faulty explanation

record student response

◀ 1 2 3 4 5 6 7 **8** 9 10 11 ▶

Not Done Incomplete Done Current

Save and Exit End Interview

Decimals Interview Question 8 of 11

Math Reasoning Inventory J, MB Decimals Interview

1 Question 9 For this division problem, look at the choices and decide which is the exact answer.

$12 \div 0.3$
0.04 0.4 4 40

2 Answer

- Correct (40)
- Incorrect
- Self-corrected (40)
- Did Not Answer

3 Explanation How did you figure out the answer?

- Divided 12 by 3 and then adjusted decimal point
- Multiplied and then adjusted decimal point
- Analyzed choices and chose one that seemed most reasonable
- Moved decimal point one place to the right in both numbers and divided
- Gave other reasonable explanation
- Guessed, did not explain, or gave faulty explanation

record student response

◀ 1 2 3 4 5 6 7 8 **9** 10 11 ▶

Not Done Incomplete Done Current

Save and Exit End Interview

Decimals Interview Question 9 of 11

1 Question 10



This pen costs \$1.39. How much do 10 of these pens cost?

2 Answer

- Correct (\$13.90)
- Incorrect
- Self-corrected (\$13.90)
- Did Not Answer

3 Explanation How did you figure out the answer?

- Used standard algorithm to multiply
- Adjusted decimal point
- Broke apart \$1.39 and then multiplied
- Multiplied \$1.40 x 10 and then subtracted
- Gave other reasonable explanation
- Guessed, did not explain, or gave faulty explanation

Notes

record student response

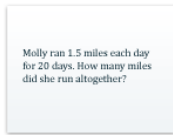
Navigation buttons: 1 2 3 4 5 6 7 8 9 10 11

Not Done Incomplete Done Current

Save and Exit End Interview

Decimals Interview Question 10 of 11

1 Question 11



Molly ran 1.5 miles each day for 20 days. How many miles did she run altogether?

2 Answer

- Correct (30)
- Incorrect
- Self-corrected (30)
- Did Not Answer

3 Explanation How did you figure out the answer?

- Used standard algorithm to multiply
- Multiplied 20 x 1 and then 20 x 0.5
- Multiplied 1.5 x 2 and then 3 x 10
- Multiplied 1.5 x 10 and then 15 x 2
- Multiplied 15 x 2 and then adjusted the decimal point
- Gave other reasonable explanation
- Guessed, did not explain, or gave faulty explanation

Notes

record student response

Navigation buttons: 1 2 3 4 5 6 7 8 9 10 11

Not Done Incomplete Done Current

Save and Exit End Interview

Decimals Interview Question 11 of 11