



New York State Testing Program

Mathematics Test

Grade **6**

2009 Scoring Guide

33

Mr. Roberts is going shopping. He has a budget of \$150.00. He will buy **either** a painting **or** a lamp.

If he spends 80% of his money on a painting, how much money will Mr. Roberts spend?

Show your work.

Answer \$ _____

If he spends 50% of his money on a lamp, instead of buying a painting, how much money will Mr. Roberts spend?

Answer \$ _____

QUESTION 33

STRAND 1: NUMBER SENSE AND OPERATIONS

Complete and Correct Response:

- $150 \times 0.8 = 120$

OR

$$\frac{150}{x} \times \frac{4}{5} = \frac{600}{5x} = 120$$

OR other valid process

AND

- $(\$)120$

AND

- $(\$)75$

Score Points:

Apply 3-point holistic rubric.

33

Mr. Roberts is going shopping. He has a budget of \$150.00. He will buy either a painting or a lamp.

If he spends 80% of his money on a painting, how much money will Mr. Roberts spend?

Show your work.

Handwritten work for the first problem:

$30 = 20\% \text{ of } 150$

$$\begin{array}{r} 30 \\ 5 \overline{) 150} \\ \underline{-150} \\ 0 \end{array}$$

$$\begin{array}{r} 12 \\ 30 \\ \times 4 \\ \hline 120 \end{array}$$

$$\begin{array}{r} 20 \\ \times 5 \\ \hline 100 \end{array}$$

$$\begin{array}{r} 15 \\ 30 \\ \times 5 \\ \hline 150 \end{array}$$

Answer \$ 120.00

If he spends 50% of his money on a lamp, instead of buying a painting, how much money will Mr. Roberts spend?

Answer \$ 75.00

Handwritten work for the second problem:

$$\begin{array}{r} 75 \\ 2 \overline{) 150} \\ \underline{-140} \\ 10 \\ \underline{-10} \\ 0 \end{array}$$

This response is complete and correct.

Score Point 3

33

Mr. Roberts is going shopping. He has a budget of \$150.00. He will buy either a painting or a lamp.

If he spends 80% of his money on a painting, how much money will Mr. Roberts spend?

Show your work.

$$\frac{80}{100} \times \frac{n}{150}$$

$$100n = 12000$$

Answer \$ 120.00

$$\frac{80}{100} \times \frac{n}{150}$$

If he spends 50% of his money on a lamp, instead of buying a painting, how much money will Mr. Roberts spend?

Answer \$ 75.00

$$\frac{50}{100} \times \frac{n}{150}$$

$$100n = 7500$$

$$\frac{50}{100} \times \frac{n}{150}$$

This response is complete and correct.

Score Point 3

33

Mr. Roberts is going shopping. He has a budget of \$150.00. He will buy either a painting or a lamp.

If he spends 80% of his money on a painting, how much money will Mr. Roberts spend?

Show your work.

Handwritten work for the first question:

$$\begin{array}{r}
 x = \frac{80}{100} \\
 150 \times \frac{80}{100} = 120 \\
 100x = 150 \times 80 \\
 100x = 12000 \\
 x = 120
 \end{array}$$

$$\begin{array}{r}
 4150 \\
 \times 180 \\
 \hline
 000 \\
 12000 \\
 \hline
 12000
 \end{array}$$

$$\begin{array}{r}
 150 \\
 -120 \\
 \hline
 030
 \end{array}$$

Answer \$ 30.00

If he spends 50% of his money on a lamp, instead of buying a painting, how much money will Mr. Roberts spend?

Answer \$ 75.00

Handwritten work for the second question:

$$\begin{array}{r}
 2150 \\
 \times 30 \\
 \hline
 000 \\
 750 \\
 \hline
 7500
 \end{array}$$

$$\begin{array}{r}
 14 \\
 -x 10 \\
 -75 \\
 \hline
 75
 \end{array}$$

$$\begin{array}{r}
 x = \frac{50}{100} \\
 150 \times \frac{50}{100} = 75 \\
 100x = 150 \times 50 \\
 100x = 7500 \\
 100x = 75 \\
 x = 75
 \end{array}$$

This response is partially correct. This response demonstrates a correct process for the first part; however, an incorrect answer is provided on the answer line.

Score Point 2

33

Mr. Roberts is going shopping. He has a budget of \$150.00. He will buy either a painting or a lamp.

If he spends 80% of his money on a painting, how much money will Mr. Roberts spend?

Show your work.

$$\begin{array}{r} 150 \\ \times 80 \\ \hline 1200 \end{array}$$

Answer \$ 12.00

If he spends 50% of his money on a lamp, instead of buying a painting, how much money will Mr. Roberts spend?

Answer \$ 70

$$\begin{array}{r} 150 \\ \times 50 \\ \hline 70 \end{array}$$

This response demonstrates only a limited understanding of the mathematical concepts embodied in the task. In the first part, a sound mathematical procedure is provided; however, a calculation error results in an incorrect answer. The second part is also incorrect.

Score Point 1

33

Mr. Roberts is going shopping. He has a budget of \$150.00. He will buy either a painting or a lamp.

If he spends 80% of his money on a painting, how much money will Mr. Roberts spend?

Show your work.

$$\begin{array}{r} \$150.00 \\ - 80 \\ \hline 142 \end{array}$$

Answer \$ 142

If he spends 50% of his money on a lamp, instead of buying a painting, how much money will Mr. Roberts spend?

Answer \$ 137

$$\begin{array}{r} 142.72 \\ - 5 \\ \hline 137 \end{array}$$

This response is incorrect.

Score Point 0



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Mathematics Test

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2009 Practice Set

33

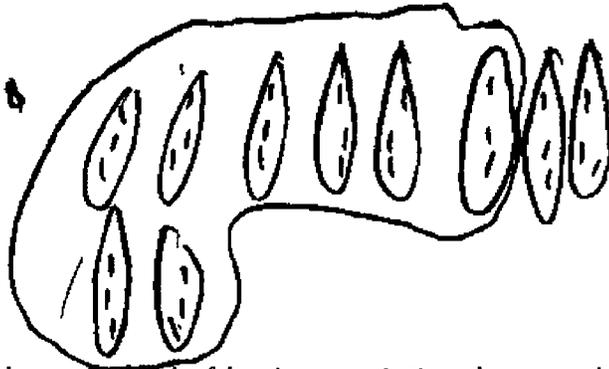
Mr. Roberts is going shopping. He has a budget of \$150.00. He will buy either a painting or a lamp.

If he spends 80% of his money on a painting, how much money will Mr. Roberts spend?

Show your work.

half of 150 is 75

Answer \$ 120.00



If he spends 50% of his money on a lamp, instead of buying a painting, how much money will Mr. Roberts spend?

Answer \$ 75.00

33

Mr. Roberts is going shopping. He has a budget of \$150.00. He will buy either a painting or a lamp.

If he spends 80% of his money on a painting, how much money will Mr. Roberts spend?

Show your work.

$$\begin{array}{r}
 150 \\
 80 \overline{) 150} \\
 \underline{80} \\
 70 \\
 \underline{40} \\
 30 \\
 \underline{0} \\
 00
 \end{array}$$

Answer \$ 15.00

$$\begin{array}{r}
 150.00 \\
 \times 80 \\
 \hline
 000000 \\
 120000 \\
 \hline
 126000
 \end{array}$$

If he spends 50% of his money on a lamp, instead of buying a painting, how much money will Mr. Roberts spend?

Answer \$ 200.00

$$\begin{array}{r}
 200 \\
 50 \overline{) 1000} \\
 \underline{500} \\
 500 \\
 \underline{500} \\
 000
 \end{array}$$

33

Mr. Roberts is going shopping. He has a budget of \$150.00. He will buy either a painting or a lamp.

If he spends 80% of his money on a painting, how much money will Mr. Roberts spend?

Show your work.

$$\cancel{150 \times .8} = \begin{array}{r} 4 \\ 15 \\ \times 8 \\ \hline 120 \end{array}$$

Answer \$ 120.⁰⁰

If he spends 50% of his money on a lamp, instead of buying a painting, how much money will Mr. Roberts spend?

Answer \$ 75

$$150 \div 2 = 75$$

33

Mr. Roberts is going shopping. He has a budget of \$150.00. He will buy either a painting or a lamp.

If he spends 80% of his money on a painting, how much money will Mr. Roberts spend?

Show your work.

$$\begin{array}{r} 80\% \text{ OF } 150.00 \\ - 120.00 \\ \hline 30.00 \end{array}$$

Answer \$ 120.00

If he spends 50% of his money on a lamp, instead of buying a painting, how much money will Mr. Roberts spend?

Answer \$ 75.00

$$\begin{array}{r} 50\% \text{ OF } 150.00 \\ 150.00 \\ \div 2 \\ \hline 75.00 \end{array}$$

33

Mr. Roberts is going shopping. He has a budget of \$150.00. He will buy either a painting or a lamp.

If he spends 80% of his money on a painting, how much money will Mr. Roberts spend?

Show your work.

Answer \$ 120.00

If he spends 50% of his money on a lamp, instead of buying a painting, how much money will Mr. Roberts spend?

Answer \$ 100.00

6th GRADE MATHEMATICS

Name: _____

PRACTICE SET ANSWER KEY

PS 1	(0-2)	
PS 2	(0-2)	
PS 3	(0-2)	
PS 4	(0-2)	
PS 5	(0-2)	
PS 6	(0-2)	
PS 7	(0-2)	
PS 8	(0-2)	
PS 9	(0-2)	
PS 10	(0-2)	
PS 11	(0-2)	
PS 12	(0-2)	
PS 13	(0-2)	
PS 14	(0-2)	
PS 15	(0-2)	
PS 16	(0-2)	
PS 17	(0-2)	
PS 18	(0-2)	
PS 19	(0-2)	
PS 20	(0-2)	
PS 21	(0-2)	
PS 22	(0-2)	
PS 23	(0-2)	
PS 24	(0-2)	
PS 25	(0-2)	

PS 26	(0-2)	
PS 27	(0-2)	
PS 28	(0-2)	
PS 29	(0-2)	
PS 30	(0-2)	
PS 31	(0-3)	
PS 32	(0-3)	
PS 33	(0-3)	
PS 34	(0-3)	
PS 35	(0-3)	
PS 36	(0-3)	
PS 37	(0-3)	
PS 38	(0-3)	
PS 39	(0-3)	
PS 40	(0-3)	
PS 41	(0-3)	
PS 42	(0-3)	
PS 43	(0-3)	
PS 44	(0-3)	
PS 45	(0-3)	
PS 46	(0-3)	
PS 47	(0-3)	
PS 48	(0-3)	
PS 49	(0-3)	
PS 50	(0-3)	