



# ***New York State Testing Program***

## **Mathematics Test**

Grade **7**

**2009 Scoring Guide**

**32**

Jan buys 12 pens for \$10. Each pen costs the same amount of money. Write a proportion to find the number of pens Jan can buy for \$15. Then solve your proportion for the number of pens.

***Show your work.***

***Answer*** \_\_\_\_\_ pens

QUESTION 32

STRAND 2: ALGEBRA

*Complete and Correct Response:*

- $\frac{12}{10} = \frac{x}{15}$

$$10x = (12)(15)$$

$$10x = 180$$

$$x = 18$$

OR other valid process

**AND**

- 18 (pens)

*Score Points:*

Apply 2-point holistic rubric.

**32**

Jan buys 12 pens for \$10. Each pen costs the same amount of money. Write a proportion to find the number of pens Jan can buy for \$15. Then solve your proportion for the number of pens.

Show your work.

$$\frac{12 \text{ pens}}{\$10} = \frac{x \text{ pens}}{\$15}$$

$$\begin{array}{l} 15 \times 12 = 10x \\ \quad \downarrow \\ 180 = 10x \\ \hline \frac{180}{10} \quad | \quad \frac{10x}{10} \\ \hline 18 = x \end{array}$$

$$\overset{\text{CHECK}}{\frac{180}{10}} \overset{180}{=} \overset{180}{\frac{18}{15}}$$

Answer 18 pens

This response is complete and correct.

Score Point 2

32

Jan buys 12 pens for \$10. Each pen costs the same amount of money. Write a proportion to find the number of pens Jan can buy for \$15. Then solve your proportion for the number of pens.

Show your work.

$$\frac{\text{pens}}{\$} = \frac{12}{10} = \frac{x}{15}$$

x1.5 (above 12 to 15)  
x1.5 (below 10 to 15)

x=18

Answer 18 pens

This response is complete and correct.

Score Point 2

- 32 Jan buys 12 pens for \$10. Each pen costs the same amount of money. Write a proportion to find the number of pens Jan can buy for \$15. Then solve your proportion for the number of pens.

*Show your work.*

$$10 \overline{) 12}$$

$$\begin{array}{r} 15 \\ \times 1.2 \\ \hline 18 \end{array}$$

Answer 18 pens

This response is only partially correct. Although valid work is shown to arrive at the correct answer, the proportion must be shown in order to demonstrate a thorough understanding of the task.

**Score Point 1**

**32**

Jan buys 12 pens for \$10. Each pen costs the same amount of money. Write a proportion to find the number of pens Jan can buy for \$15. Then solve your proportion for the number of pens.

*Show your work.*

$$\begin{array}{r} 12 \\ 10 \\ + 15 \\ \hline 57 \end{array}$$

Answer 18 pens

This response is only partially correct. The correct answer is provided; however, the correct work is not shown.

**Score Point 1**

- 32** Jan buys 12 pens for \$10. Each pen costs the same amount of money. Write a proportion to find the number of pens Jan can buy for \$15. Then solve your proportion for the number of pens.

*Show your work.*

$$12 + 10 + 15 = \cancel{\$37}$$

Answer ~~\$~~ 37.00 pens

This response is incorrect.

Score Point 0



# ***New York State Testing Program***

## **Mathematics Test**

Grade **7**

**2009 Practice Set**

32

Jan buys 12 pens for \$10. Each pen costs the same amount of money. Write a proportion to find the number of pens Jan can buy for \$15. Then solve your proportion for the number of pens.

*Show your work.*

$$\frac{12}{10} = \frac{x}{15}$$

$$12 \cdot 15 = 180$$

Answer 18 pens

**32**

Jan buys 12 pens for \$10. Each pen costs the same amount of money. Write a proportion to find the number of pens Jan can buy for \$15. Then solve your proportion for the number of pens.

*Show your work.*

$$\frac{12}{10} = \frac{18}{15}$$

*Answer* \_\_\_\_\_ **18** \_\_\_\_\_ pens

**32**

Jan buys 12 pens for \$10. Each pen costs the same amount of money. Write a proportion to find the number of pens Jan can buy for \$15. Then solve your proportion for the number of pens.

*Show your work.*

$$\frac{x}{12} = \frac{15}{10} = \frac{10x}{12} = \frac{150}{10} = 15$$

Answer 15 pens

32

Jan buys 12 pens for \$10. Each pen costs the same amount of money. Write a proportion to find the number of pens Jan can buy for \$15. Then solve your proportion for the number of pens.

Show your work.

$$\begin{array}{r} 1.2 \\ 10 \overline{) 12} \end{array} \qquad \begin{array}{r} 1.2 \\ \times 10 \\ \hline 12 \end{array}$$

Answer 1.2 pens



# 7<sup>th</sup> 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	(0-3)	
PS 22	(0-3)	
PS 23	(0-3)	
PS 24	(0-3)	
PS 25	(0-3)	
PS 26	(0-3)	
PS 27	(0-3)	
PS 28	(0-3)	
PS 29	(0-3)	
PS 30	(0-3)	
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)	