

PSSA and Keystone Exams  
Summer 2023 Workshops

# **PSSA, Grade 7 Math**

*Bella's Gardening Materials*

Handscoring  
Training Set 1

+

73. Bella bought gardening materials from different stores.

At Garden Mart, Bella bought  $g$  packets of geranium seeds,  $m$  packets of marigold seeds, and  $z$  packets of zinnia seeds. All of the plant seeds were on sale for half price. The expression shown below represents the total cost of the plant seeds Bella bought.

$$\frac{1}{2}(2.48g + 1.74m + 1.96z)$$

- A. Write an expression without parentheses that also represents Bella's total cost at Garden Mart.

$$1.24g + .87m + .98z$$

At Plant World, Bella bought a hose and a shovel. The hose was priced at \$29.68, but Bella had a coupon for  $x$  dollars off. The price of the shovel was \$14.45.

- B. Write an expression to represent how much money, in dollars, Bella spent at Plant World.

$$29.68 - x + 14.45 = y$$

let  $x$  = dollars off the price of the hose

let  $y$  = how much money Bella spent at Planet World.

F

73. *Continued.* Please refer to the previous page for task explanation.

Bella went to Yard Depot multiple times. Each time she was there, Bella bought a gardening hat and  $y$  pairs of gardening gloves. The expression shown below represents the total amount of money, in dollars, Bella spent at Yard Depot.

$$a(by + c)$$

C. Explain what  $a$ ,  $b$ , and  $c$  each mean in terms of the situation.

let  $a$  = the amount of times Bella went to Yard Depot.

let  $b$  = the cost of each pair of gardening gloves.

let  $c$  = the cost of the gardening hat Bella bought.

F:

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At Garden Mart, Bella bought  $g$  packets of geranium seeds,  $m$  packets of marigold seeds, and  $z$  packets of zinnia seeds. All of the plant seeds were on sale for half price. The expression shown below represents the total cost of the plant seeds Bella bought.

$$\frac{1}{2}(2.48g + 1.74m + 1.96z)$$

- A. Write an expression without parentheses that also represents Bella's total cost at Garden Mart.

$$\frac{1}{2} \cdot 6.18 = 3.09$$

At Plant World, Bella bought a hose and a shovel. The hose was priced at \$29.68, but Bella had a coupon for  $x$  dollars off. The price of the shovel was \$14.45.

- B. Write an expression to represent how much money, in dollars, Bella spent at Plant World.

$$(\$29.68 - x) + 14.45$$

F

73. *Continued.* Please refer to the previous page for task explanation.

Bella went to Yard Depot multiple times. Each time she was there, Bella bought a gardening hat and  $y$  pairs of gardening gloves. The expression shown below represents the total amount of money, in dollars, Bella spent at Yard Depot.

$$a(by + c)$$

C. Explain what  $a$ ,  $b$ , and  $c$  each mean in terms of the situation.

$A$  means each time she was at Yard Depot.

$B$  means price of a pair of gardening gloves.

$C$  means the gardening hat.



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At Garden Mart, Bella bought  $g$  packets of geranium seeds,  $m$  packets of marigold seeds, and  $z$  packets of zinnia seeds. All of the plant seeds were on sale for half price. The expression shown below represents the total cost of the plant seeds Bella bought.

$$\frac{1}{2}(2.48g + 1.74m + 1.96z)$$

- A. Write an expression without parentheses that also represents Bella's total cost at Garden Mart.

$$\frac{2.48g + 1.74m + 1.96z}{2}$$

At Plant World, Bella bought a hose and a shovel. The hose was priced at \$29.68, but Bella had a coupon for  $x$  dollars off. The price of the shovel was \$14.45.

- B. Write an expression to represent how much money, in dollars, Bella spent at Plant World.

$$\frac{29.68}{x} + 14.45$$

F

73. *Continued.* Please refer to the previous page for task explanation.

Bella went to Yard Depot multiple times. Each time she was there, Bella bought a gardening hat and  $y$  pairs of gardening gloves. The expression shown below represents the total amount of money, in dollars, Bella spent at Yard Depot.

$$a(by + c)$$

C. Explain what  $a$ ,  $b$ , and  $c$  each mean in terms of the situation.

what  $a$ ,  $b$ , and  $c$  mean in terms of the situation is the price of each item and the amount of times Bella went in an algebraic expression. One variable for the amount of times she went to Yard Depot, one variable for the cost of the gardening hats, and one variable for the price of the gardening gloves.



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At Garden Mart, Bella bought  $g$  packets of geranium seeds,  $m$  packets of marigold seeds, and  $z$  packets of zinnia seeds. All of the plant seeds were on sale for half price. The expression shown below represents the total cost of the plant seeds Bella bought.

$$\frac{1}{2}(2.48g + 1.74m + 1.96z)$$

- A. Write an expression without parentheses that also represents Bella's total cost at Garden Mart.

$$0.5 \cdot 2.48g + 1.74m + 1.96z$$

At Plant World, Bella bought a hose and a shovel. The hose was priced at \$29.68, but Bella had a coupon for  $x$  dollars off. The price of the shovel was \$14.45.

- B. Write an expression to represent how much money, in dollars, Bella spent at Plant World.

$$29.68 - x - 14.45 =$$



F

73. *Continued.* Please refer to the previous page for task explanation.

Bella went to Yard Depot multiple times. Each time she was there, Bella bought a gardening hat and  $y$  pairs of gardening gloves. The expression shown below represents the total amount of money, in dollars, Bella spent at Yard Depot.

$$a(by + c)$$

C. Explain what  $a$ ,  $b$ , and  $c$  each mean in terms of the situation.

$a$  = The hose

$b$  = Gardening gloves

$y$  = The amount of gardening gloves

$c$  = Money

F

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At Garden Mart, Bella bought  $g$  packets of geranium seeds,  $m$  packets of marigold seeds, and  $z$  packets of zinnia seeds. All of the plant seeds were on sale for half price. The expression shown below represents the total cost of the plant seeds Bella bought.

$$\frac{1}{2}(2.48g + 1.74m + 1.96z)$$

- A. Write an expression without parentheses that also represents Bella's total cost at Garden Mart.

$$1.24g + .87m + .98z$$

At Plant World, Bella bought a hose and a shovel. The hose was priced at \$29.68, but Bella had a coupon for  $x$  dollars off. The price of the shovel was \$14.45.

- B. Write an expression to represent how much money, in dollars, Bella spent at Plant World.

$$\$44.13 - \$x$$

F

73. *Continued.* Please refer to the previous page for task explanation.

Bella went to Yard Depot multiple times. Each time she was there, Bella bought a gardening hat and  $y$  pairs of gardening gloves. The expression shown below represents the total amount of money, in dollars, Bella spent at Yard Depot.

$$a(by + c)$$

C. Explain what  $a$ ,  $b$ , and  $c$  each mean in terms of the situation.

The variable  $a$  is how many times Bella went to Yard Depot.

The variable  $b$  is how much each pair of gardening gloves costs.  
(in dollars)

The variable  $c$  is how much the gardening hat costs.  
(in dollars)



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$$\frac{1}{2}(2.48g + 1.74m + 1.96z)$$

- A. Write an expression without parentheses that also represents Bella's total cost at Garden Mart.

$$2.48g + 1.74 + 1.96 \cdot \frac{1}{2}$$

At Plant World, Bella bought a hose and a shovel. The hose was priced at \$29.68, but Bella had a coupon for  $x$  dollars off. The price of the shovel was \$14.45.

- B. Write an expression to represent how much money, in dollars, Bella spent at Plant World.

$$29.68 + 14.45 - x$$



73. **Continued.** Please refer to the previous page for task explanation.

Bella went to Yard Depot multiple times. Each time she was there, Bella bought a gardening hat and  $y$  pairs of gardening gloves. The expression shown below represents the total amount of money, in dollars, Bella spent at Yard Depot.

$$a(by + c)$$

C. Explain what  $a$ ,  $b$ , and  $c$  each mean in terms of the situation.

$A$  mean amount I know that because amount starts with  $a$ ,

$B$  mean bought because it's how many things she bought

$C$  means cost because it's the cost of what the gloves are.

F

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At Garden Mart, Bella bought  $g$  packets of geranium seeds,  $m$  packets of marigold seeds, and  $z$  packets of zinnia seeds. All of the plant seeds were on sale for half price. The expression shown below represents the total cost of the plant seeds Bella bought.

$$\frac{1}{2}(2.48g + 1.74m + 1.96z)$$

- A. Write an expression without parentheses that also represents Bella's total cost at Garden Mart.

$$\frac{1}{2} \times 2.48 \times g + \frac{1}{2} \times 1.74 \times m + \frac{1}{2} \times 1.96 \times z$$

At Plant World, Bella bought a hose and a shovel. The hose was priced at \$29.68, but Bella had a coupon for  $x$  dollars off. The price of the shovel was \$14.45.

- B. Write an expression to represent how much money, in dollars, Bella spent at Plant World.

$$29.68 - x + 14.45$$

F

73. *Continued.* Please refer to the previous page for task explanation.

Bella went to Yard Depot multiple times. Each time she was there, Bella bought a gardening hat and  $y$  pairs of gardening gloves. The expression shown below represents the total amount of money, in dollars, Bella spent at Yard Depot.

$$a(by + c)$$

- C. Explain what  $a$ ,  $b$ , and  $c$  each mean in terms of the situation.

A, B, and C stand for all the separate amount of times Bella went to Yard Depot. She may have had a different price each time so you cannot just make it all under one variable. Each A, B, and C stand for each different time she went to Yard Depot.

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At Garden Mart, Bella bought  $g$  packets of geranium seeds,  $m$  packets of marigold seeds, and  $z$  packets of zinnia seeds. All of the plant seeds were on sale for half price. The expression shown below represents the total cost of the plant seeds Bella bought.

$$\frac{1}{2}(2.48g + 1.74m + 1.96z)$$

- A. Write an expression without parentheses that also represents Bella's total cost at Garden Mart.

$$\frac{\$2.48g}{2} + \frac{\$1.74m}{2} + \frac{\$1.96z}{2}$$

At Plant World, Bella bought a hose and a shovel. The hose was priced at \$29.68, but Bella had a coupon for  $x$  dollars off. The price of the shovel was \$14.45.

- B. Write an expression to represent how much money, in dollars, Bella spent at Plant World.

$$(\$29.68 - x) + \$14.45$$



✚

73. *Continued.* Please refer to the previous page for task explanation.

Bella went to Yard Depot multiple times. Each time she was there, Bella bought a gardening hat and  $y$  pairs of gardening gloves. The expression shown below represents the total amount of money, in dollars, Bella spent at Yard Depot.

$$a(by + c)$$

C. Explain what  $a$ ,  $b$ , and  $c$  each mean in terms of the situation.

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" $a$ " stands for how many times Bella went to Yard Depot because she bought the same things each time.

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" $b$ " stands for the price of the pairs of gardening gloves that she bought.

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" $c$ " stands for the cost of the <sup>one</sup> gardening hat she bought each time she went to Yard Depot.

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$$\frac{1}{2}(2.48g + 1.74m + 1.96z)$$

- A. Write an expression without parentheses that also represents Bella's total cost at Garden Mart.

$$1.24g + .87m + .98z = X$$

At Plant World, Bella bought a hose and a shovel. The hose was priced at \$29.68, but Bella had a coupon for  $x$  dollars off. The price of the shovel was \$14.45.

- B. Write an expression to represent how much money, in dollars, Bella spent at Plant World.

$$29.68 + 14.45 - x = 44.13 - x$$

$$29.68 + 14.45 = 44.13 - x$$

$$\frac{44.13}{2} = \frac{X}{100} \quad \frac{44.13}{100}$$

F

73. *Continued.* Please refer to the previous page for task explanation.

Bella went to Yard Depot multiple times. Each time she was there, Bella bought a gardening hat and  $y$  pairs of gardening gloves. The expression shown below represents the total amount of money, in dollars, Bella spent at Yard Depot.

$$a(by + c)$$

C. Explain what  $a$ ,  $b$ , and  $c$  each mean in terms of the situation.

$C$  means the cost of 1 hat.

$A$  means the amount of items got.

$b$  means how much she got.

1

73. Bella bought gardening materials from different stores.

At Garden Mart, Bella bought  $g$  packets of geranium seeds,  $m$  packets of marigold seeds, and  $z$  packets of zinnia seeds. All of the plant seeds were on sale for half price. The expression shown below represents the total cost of the plant seeds Bella bought.

$$\frac{1}{2}(2.48g + 1.74m + 1.96z)$$

- A. Write an expression without parentheses that also represents Bella's total cost at Garden Mart.

$$2.48 \times g \times .5 + 1.74 \times m \times .5 + 1.96 \times z \times .5$$

At Plant World, Bella bought a hose and a shovel. The hose was priced at \$29.68, but Bella had a coupon for  $x$  dollars off. The price of the shovel was \$14.45.

- B. Write an expression to represent how much money, in dollars, Bella spent at Plant World.

$$(\$29.68 - x) + \$14.45$$

F

73. *Continued.* Please refer to the previous page for task explanation.

Bella went to Yard Depot multiple times. Each time she was there, Bella bought a gardening hat and  $y$  pairs of gardening gloves. The expression shown below represents the total amount of money, in dollars, Bella spent at Yard Depot.

$$a(by + c)$$

C. Explain what  $a$ ,  $b$ , and  $c$  each mean in terms of the situation.

In terms of this situation  $a$  is the number of times Bella went to Yard Depot,  $b$  is the price of the gardening gloves, and  $c$  is the price of the gardening hat.



PSSA Math: Bella's Gardening Materials (Grade 7); Training Set 1

Subject: Math

Item: Bella's Gardening Materials

Grade:7

Name \_\_\_\_\_

Number	Score	Notes
T1-1		
T1-2		
T1-3		
T1-4		
T1-5		
T1-6		
T1-7		
T1-8		
T1-9		
T1-10		