

STUDENT NAME _____



State of Texas Assessments of Academic Readiness

Algebra I

STAAR Alternate 2

Administered April 2023

RELEASED

ALGEBRA I

Input	Process	Output
1	$1 \times 4 = 1 \times 4^1$	4
2	$1 \times 4 \times 4 = 1 \times 4^2$	16
3	$1 \times 4 \times 4 \times 4 = 1 \times 4^3$	64

2a

Input	Process	Output
1	$1 \times 4 = 1 \times 4^1$	4
2	$1 \times 4 \times 4 = 1 \times 4^2$	16
3	$1 \times 4 \times 4 \times 4 = 1 \times 4^3$	64

2b

4	$4 \times 4 = 4 \times 4$	16
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4	$1 \times 4 \times 4 \times 4 \times 4 = 1 \times 4^4$	256
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Week	Process	Length (inches)
1	$8 \times 2 = 8 \times 2^1$	16
2	$8 \times 2 \times 2 = 8 \times 2^2$	32
3	$8 \times 2 \times 2 \times 2 = 8 \times 2^3$	64
4		

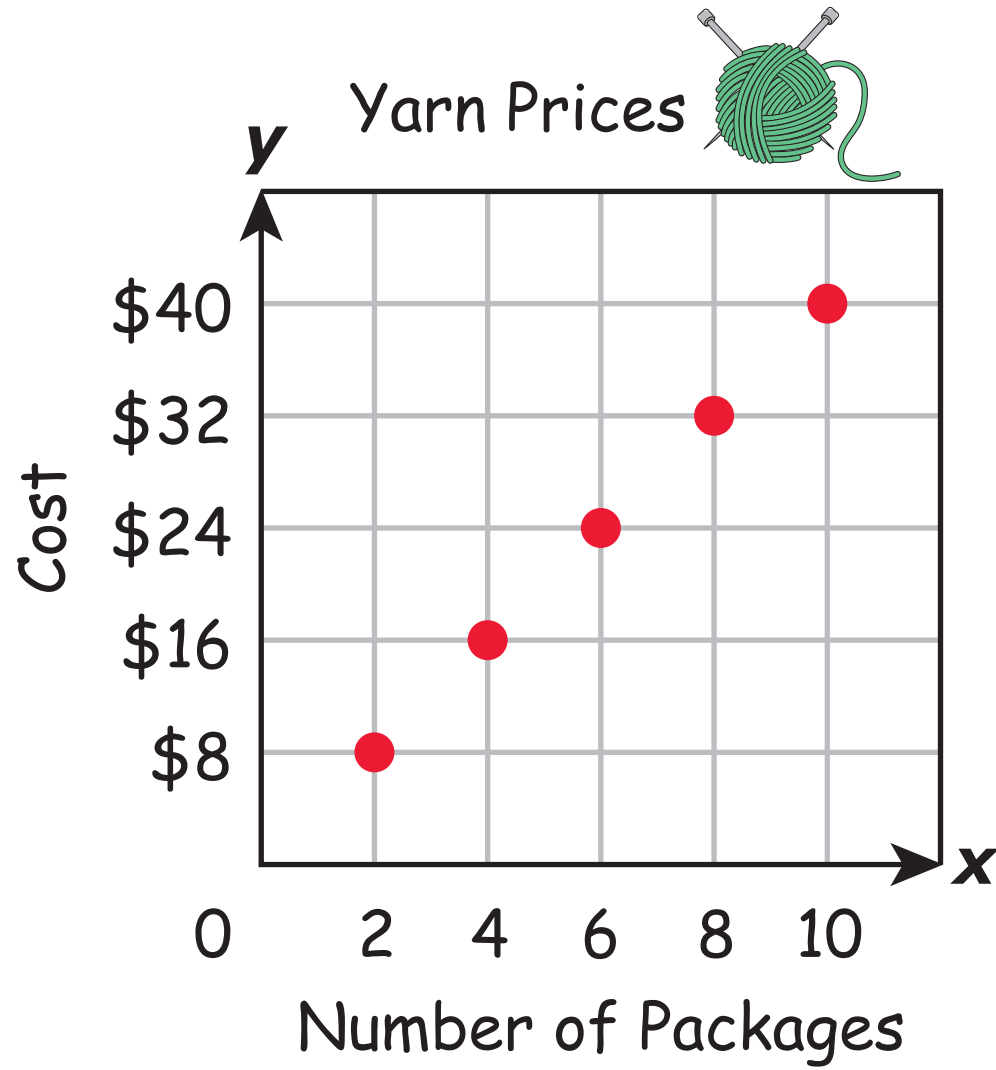
3b

$8 \times 2 \times 2 \times 2 \times 2 = 8 \times 2^4$	128
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$64 + 4$	68
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$2 \times 2 \times 2 \times 2$	16
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4a



4b

\$18

\$20

\$22

$$7 \times 8 = \underline{s}$$

$$7 \times 8 = \underline{56}$$

6a

56						
<i>s</i>	<i>s</i>	<i>s</i>	<i>s</i>	<i>s</i>	<i>s</i>	20

6b

$$(56 - 20) \div 6 = \underline{\quad s \quad}$$

$$(56 + 20) \div 6 = \underline{\quad s \quad}$$

7a

$$7 \times 8 \times 6 = n$$

7b

$$n = 62$$

$$n = 90$$

$$n = 336$$

8a

$$25 + 10 - p = 22$$

8b

35

20

13

$$1,000 + 100 + 20 + 5$$

$$1,125$$

10a

$$1,125 = 1,000 + 100 + 20 + 5$$

$$3,365 = 3,000 + 300 + 60 + 5$$

$$2,000 + 100 + 50 + 5 = 2,000 + 100 + 50 + 5$$

11a

$$6^2 = 6 \times 6$$

$$6^2 + 2 = \square$$

11b

38

14

24

12a

$$5^2 - (4 \times 3)$$

12b

37

13

2

Chocolate Candy



Number of Boxes	1	2	3
Pieces of Chocolate Candy	6	12	18

Chocolate Candy



Number of Boxes	1	2	3
Pieces of Chocolate Candy	6	12	18

14b

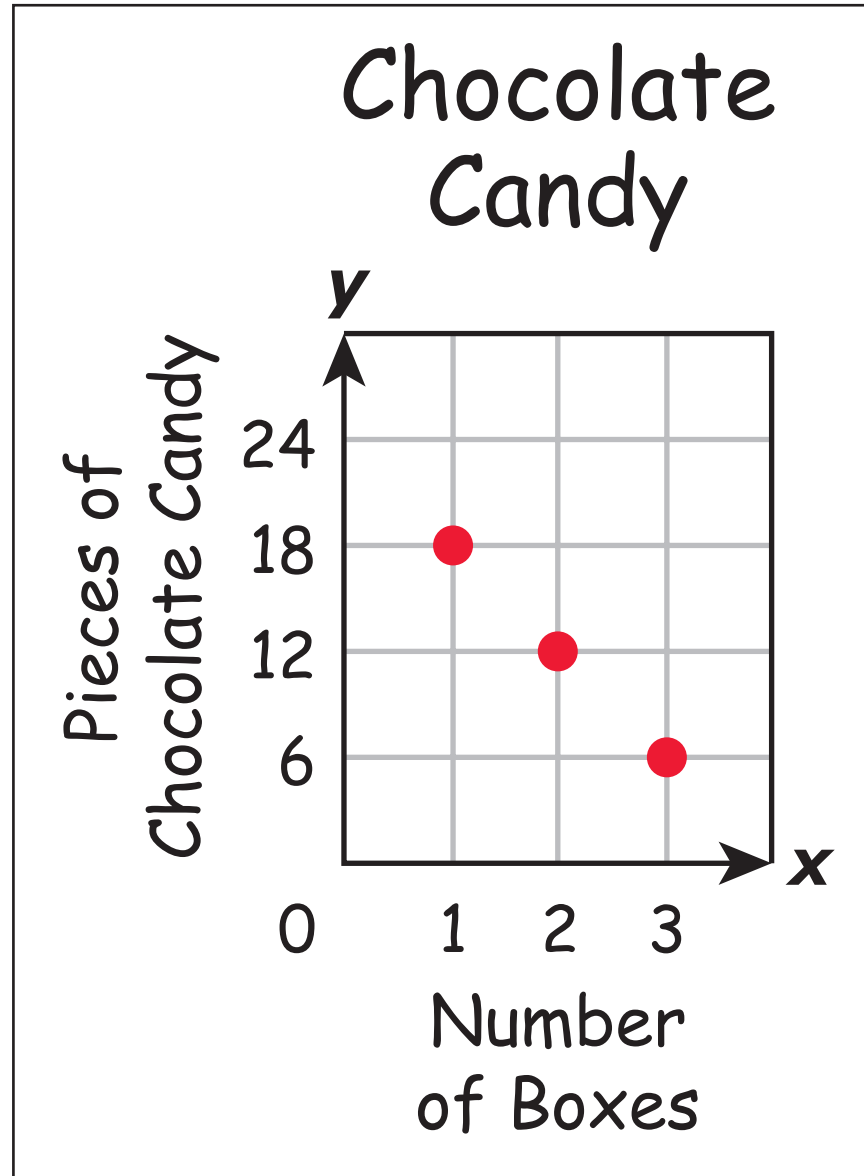
+ 5

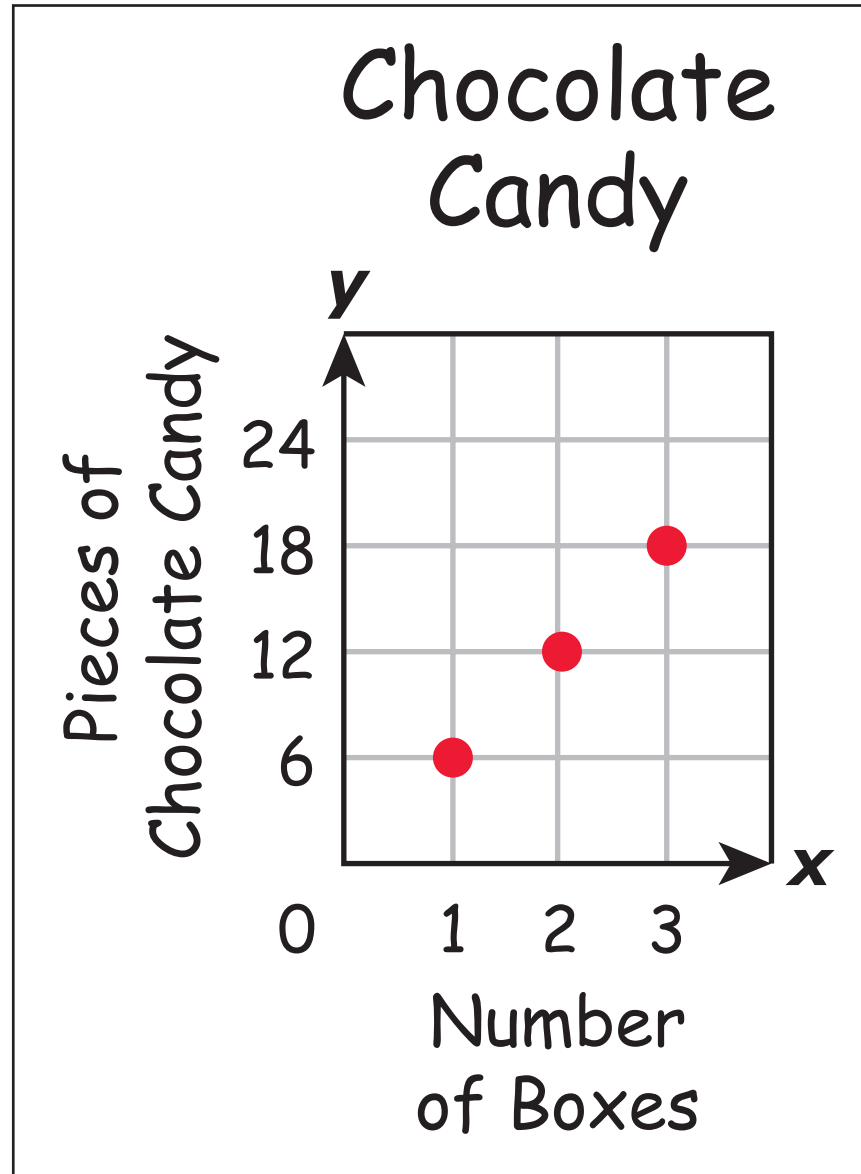
× 6

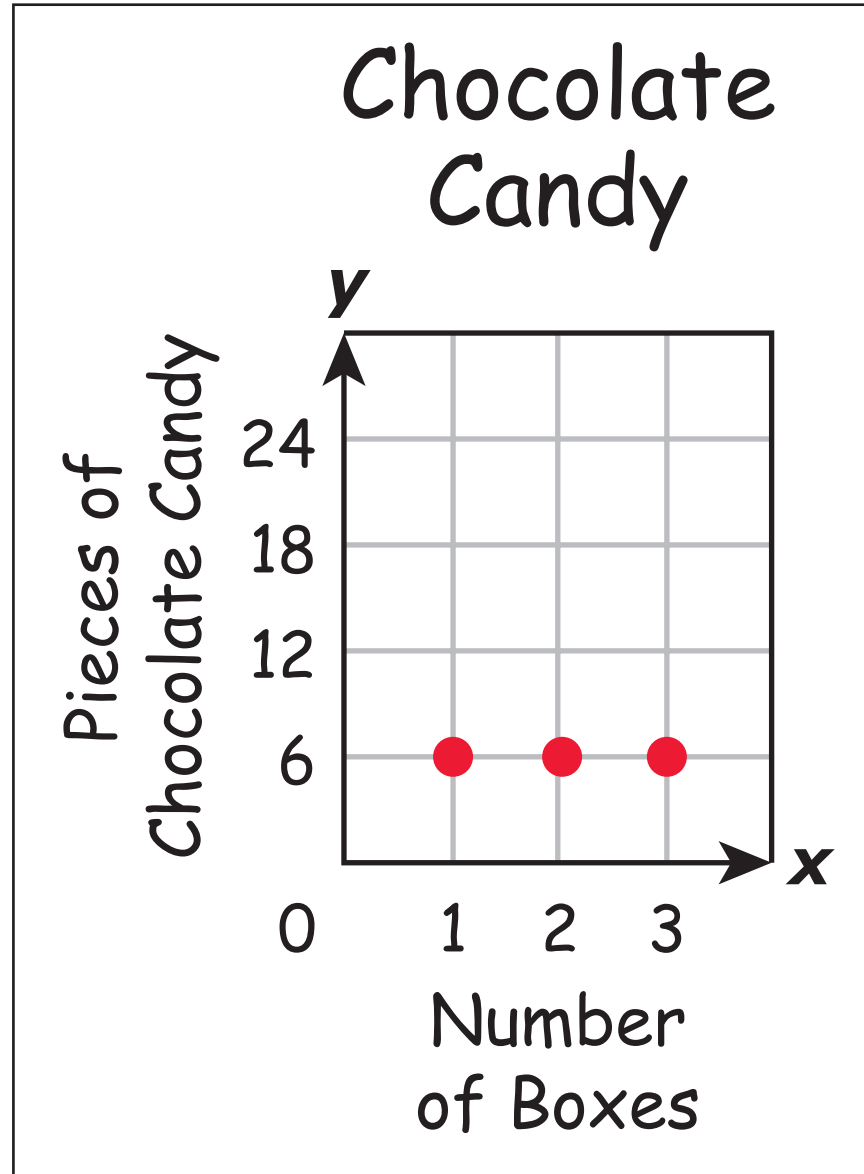
Chocolate Candy



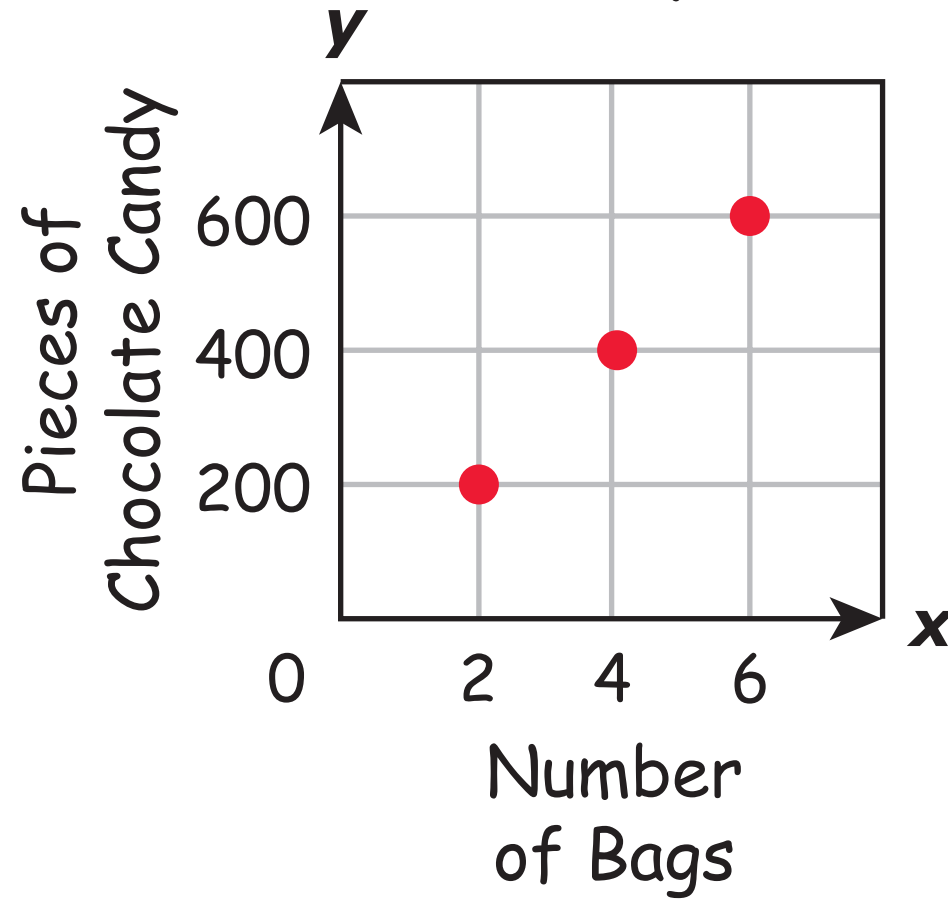
Number of Boxes	1	2	3
Pieces of Chocolate Candy	6	12	18







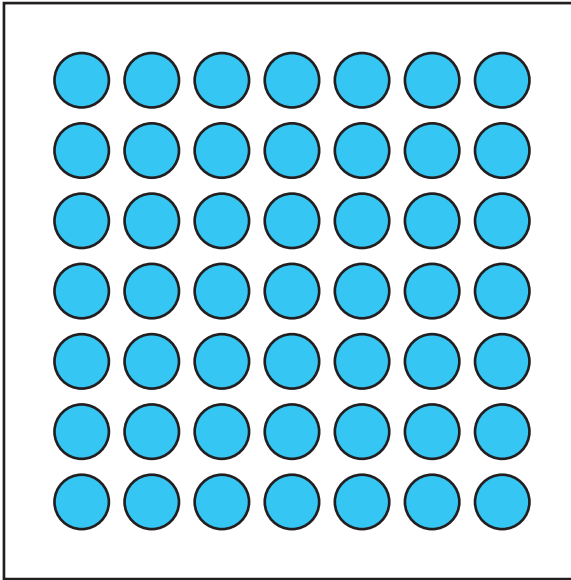
Chocolate Candy



There are 500 pieces of chocolate candy in 5 bags.

There are 100 pieces of chocolate candy in 2 bags.

There are 600 pieces of chocolate candy in 3 bags.



$$7 \times 7 = 49$$

$$7^2 = 49$$

18a

$$7 \times 7 = 49$$

$$7^2 = 49$$

$$8^2 = 64$$

$$9 + 9 = 18$$

Factor	Process	Solution
4	4×2	8
5	5×2	10
6	6×2	12

Factor	Process	Solution
4	$4 + 2$	6
5	$5 + 2$	7
6	$6 + 2$	8

Factor	Process	Solution
4	4^2	16
5	5^2	25
6	6^2	36

Factor (x)	Solution (y)
2	5
3	10
4	17
5	26

20b

$$2x - 1 = y$$

$$x^2 = y$$

$$x^2 + 1 = y$$



STAAR ALTERNATE 2
Algebra I
April 2023

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