

STAAR Spring 2024 Grade 7 Math Answer Key

Item Position	Item Type	TEKS Alignment	Maximum Number of Points	Correct Answer(s)	Reporting Category	Readiness or Supporting
1	Multiple Choice	7.3.5.C	1	C	3	Readiness
2	Multiple Choice	7.2.3.A	1	A	2	Supporting
3	Drag and Drop	7.1.2.A	1	Rational numbers, Whole numbers, Natural numbers, See Appendix 1.1	1	Supporting
4	Multiple Choice	7.3.9.A	1	B	3	Readiness
5	Multiple Choice	7.2.3.B	1	D	2	Readiness
6	Drag and Drop	7.1.6.H	2	Action, Nonfiction, Fantasy See Appendix 1.2	1	Readiness
7	Multiple Choice	7.3.11.C	1	A	3	Supporting
8	Multiple Choice	7.2.4.C	1	D	2	Supporting
9	Multiple Choice	7.3.4.E	1	A	3	Supporting
10	Drag and Drop	7.2.11.A	2	$x > -3, x > 9$ See Appendix 1.3	2	Readiness
11	Multiple Choice	7.4.6.G	1	C	4	Readiness
12	Equation	7.3.9.C	1	7,800 See Appendix 1.4	3	Readiness
13	Multiple Choice	7.1.6.I	1	B	1	Readiness
14	Multiple Choice	7.3.9.B	1	A	3	Readiness
15	Multiple Choice	7.2.7.A	1	C	2	Readiness
16	Multiple Choice	7.2.4.A	1	A	2	Readiness
17	Multiple Choice	7.4.12.A	1	B	4	Readiness
18	Hot Spot	7.2.7.A	2	the topmost table, the rightmost equation, the leftmost graph	2	Readiness

				See Appendix 1.5		
19	Multiple Choice	7.3.5.C	1	D	3	Readiness
20	Multiple Choice	7.2.4.D	1	B	2	Readiness
21	Multiple Select	7.4.6.G	2	Selected the second and fifth statements See Appendix 1.6	4	Readiness
22	Multiple Choice	7.2.10.A	1	D	2	Supporting
23	Multiple Choice	7.4.13.C	1	A	4	Supporting
24	Multiple Choice	7.2.3.B	1	C	2	Readiness
25	Multiple Choice	7.3.9.B	1	D	3	Readiness
26	Inline Choice	7.2.4.B	2	32, 8 See Appendix 1.7	2	Supporting
27	Multiple Choice	7.3.9.D	1	A	3	Supporting
28	Match Table Grid	7.2.11.B	2	Not True, True, True, Not True See Appendix 1.8	2	Supporting
29	Multiple Choice	7.1.6.H	1	D	1	Readiness
30	Graphing	7.2.4.A	1	A graph through (0, 0) and (2, 3) See Appendix 1.9	2	Readiness
31	Multiple Choice	7.1.6.I	1	C	1	Readiness
32	Multiple Choice	7.4.12.A	1	B	4	Readiness
33	Multiple Choice	7.3.5.B	1	C	3	Supporting
34	Multiple Choice	7.2.11.A	1	D	2	Readiness
35	Drag and Drop	7.4.12.C	2	music, physical education See Appendix 1.10	4	Supporting
36	Multiple Choice	7.3.9.C	1	C	3	Readiness
37	Inline Choice	7.2.4.D	2	32, 64 See Appendix 1.11	2	Readiness
38	Multiple Choice	7.4.12.B	1	C	4	Supporting

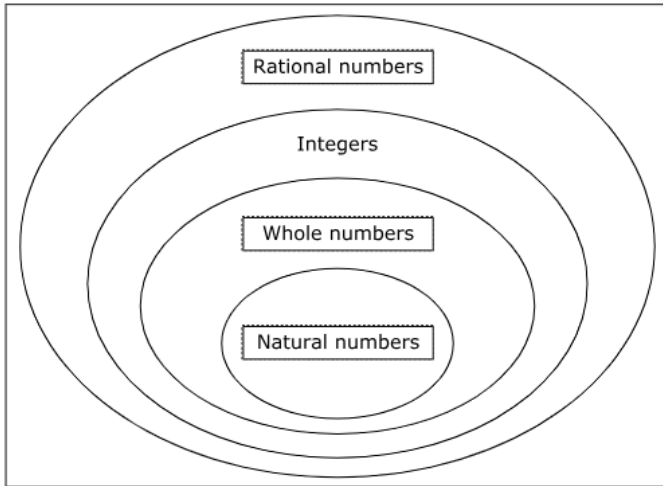
STAAR Spring 2024 Grade 7 Math Appendix

1.1

Complete the Venn diagram to show the relationship among integers, rational numbers, natural numbers, and whole numbers.

Move the correct answer to each box.

Rational numbers Natural numbers Whole numbers



1.2

A school librarian surveyed 80 randomly selected students about their favorite type of book. The results are shown in the table.

Favorite Type of Book

Type of Book	Number of Students
Action	24
Mystery	14
Fantasy	15
Nonfiction	9
Biography	18

Based on the results in the table, which types of books make the statements about a randomly selected student true?

Move the correct answer to each box. Not all answers will be used.

Action Mystery Fantasy Nonfiction Biography

The student is more than twice as likely to prefer as to prefer .

The student is equally likely to prefer Action as to prefer Nonfiction or .

1.3

What is the solution set for each inequality?

Move the correct answer to each box in the table. Each answer may be used more than once. Not all answers will be used.

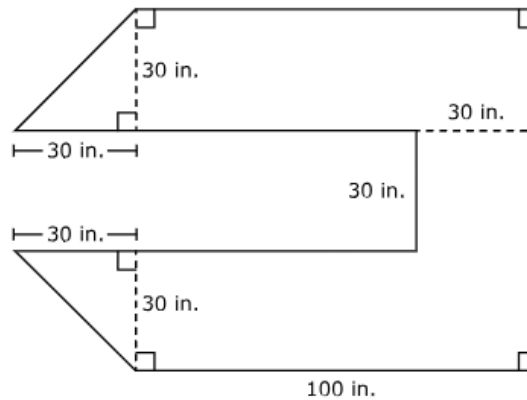
$x < -3$ $x > -3$ $x < 9$ $x > 9$

Inequalities and Solutions

Inequality	Solution
$-3x + 9 < 18$	$x > -3$
$4x - 24 > 12$	$x > 9$

1.4

The top of a table is made up of triangles and rectangles. The table and its dimensions in inches are shown in the diagram.



What is the area of the top of the table in square inches?

Enter your answer in the box provided.

7800

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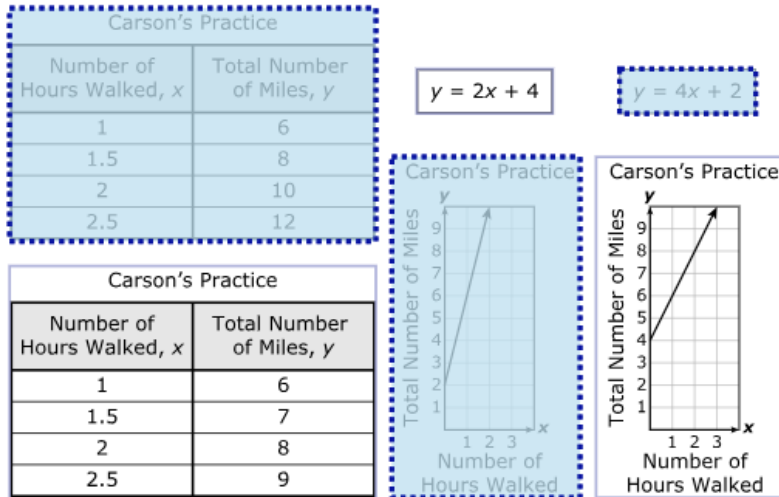
1	2	3
4	5	6
7	8	9
	0	
.	-	$\frac{\square}{\square}$

1.5

Carson practices each day to prepare for an upcoming race. He starts the day by running 2 miles and then walking at a rate of 4 miles per hour.

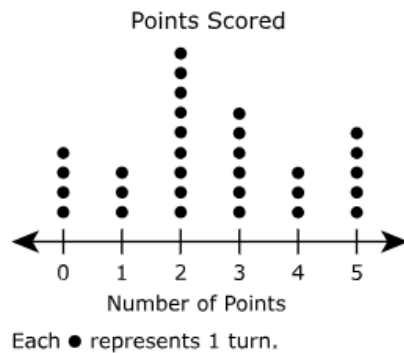
Which representations show the relationship between the total number of miles he covers in a day, y , and the number of hours he walks, x ?

Select **THREE** correct answers.



1.6

The dot plot shows the number of points a player scored in each of 30 turns in a game.



Which statements are best supported by the data in the dot plot?

Select **TWO** correct answers.

Exactly 9% of the turns were 2 points.

Exactly $\frac{1}{6}$ of the turns were 5 points.

Exactly half of the turns were 3 points or more.

Exactly $\frac{1}{10}$ of the turns were 1 point or fewer.

Exactly 50% of the turns were 2 or 3 points.

1.7

A home printer prints 48 black-and-white pages in 1.5 minutes. The same printer prints 20 color pages in 2.5 minutes.

What are the rates in pages per minute for black-and-white and color printing?

Choose the correct answer from each drop-down menu to complete the sentences.

The printer prints pages per minute in black-and-white.

The printer prints pages per minute in color.

1.8

Determine whether each equation is true or not true when $m = -5$.

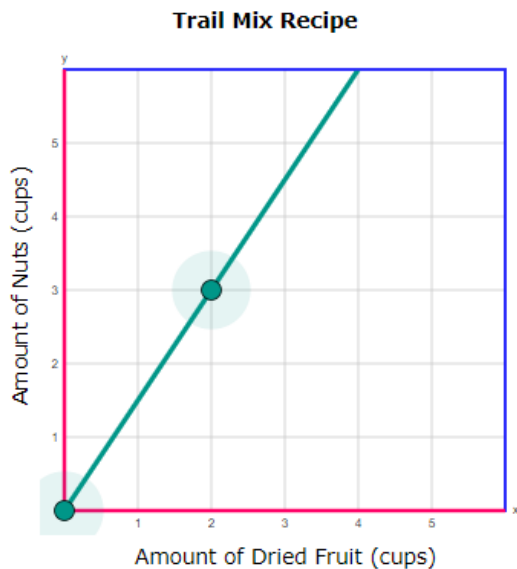
Select the correct answer in each row.

Equation	True	Not True
$4m - 6 = 14$	<input type="checkbox"/>	<input checked="" type="checkbox"/>
$-2m + 7 = 17$	<input checked="" type="checkbox"/>	<input type="checkbox"/>
$4m - 6 = -26$	<input checked="" type="checkbox"/>	<input type="checkbox"/>
$-2m + 7 = -3$	<input type="checkbox"/>	<input checked="" type="checkbox"/>

1.9

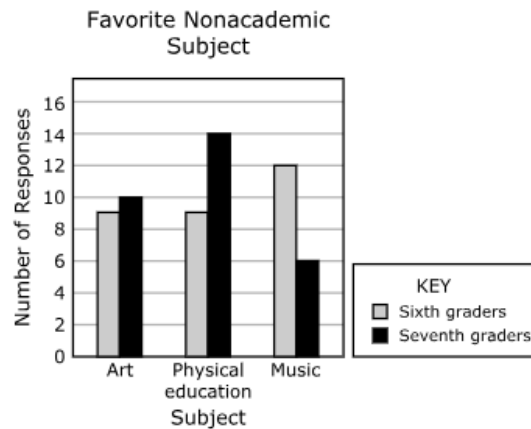
A recipe for trail mix requires $1\frac{1}{2}$ cups of nuts for every cup of dried fruit. Create a graph to represent y , the number of cups of nuts required for x cups of dried fruit.

Select two points on the coordinate grid. A line will connect the points.



1.10

Mr. Johnson conducted a random survey during lunch, asking students to choose their favorite nonacademic subject. The results are shown in the bar graph.



What can be predicted about all sixth and seventh graders at lunch? Complete the statements to make inferences that are best supported by the information in the graph.

Move the correct answer to each box. Each answer may be used more than once. Not all answers will be used.

art physical education music

More sixth graders would choose **music** than would choose either one of the other two subjects.

More seventh graders would choose **physical education** than would choose either one of the other two subjects.

1.11

The ratio of blue to yellow to green gumballs in a gumball machine is 4:3:1. There are 24 yellow gumballs in the machine. Complete the sentences about the gumballs.

Choose the correct answer from each drop-down menu to complete the sentences.

There are blue gumballs. The machine contains a total of gumballs.