

GRADE 8

STAAR

Blueprint Assessments

OVERVIEW

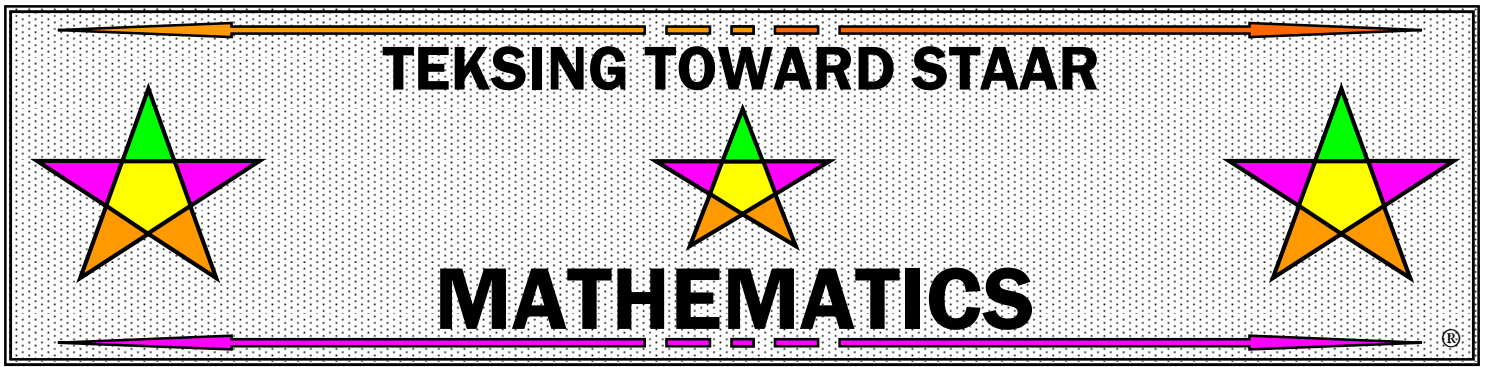
These Blueprint Assessments were created to provide teachers with assessments that include the same number of questions as the actual STAAR assessment. Blueprint Assessment 1 and Blueprint Assessment 2 give teachers the opportunity to assess the TEKS assessed on STAAR, as well as an opportunity to assess the endurance level of students as they strive to successfully complete an assessment the actual length of the STAAR. An answer key and TEKS correlation is provided for each item on each assessment. Teacher Notes regarding suggestions for administration of the assessments are also included.

The design of the Blueprints Assessments takes into consideration the following information from the STAAR Grade 8 Mathematics Blueprint released from the TEA in January 2014:

- 60% - 65% of the questions will assess Readiness Standards – 34-36 of 56 total questions
- 35% - 40% of the questions will assess Supporting Standards – 20-22 of 56 total questions
- 52 questions will be multiple choice format and 4 questions will be griddable format

AUTHORS' VISION FOR IMPLEMENTATION

- Blueprint Assessments can be broken up into sections and given over a period of time, or can be given in a STAAR day type setting.
- Blueprint Assessment 1 is designed to be given at the beginning of a school year, as much to find out what students HAVE mastered, as to find out what students HAVE NOT mastered.
- Blueprint Assessment data should be recorded in a Class Profile and a Student Profile.
- Blueprint Assessment 2 is designed to be given at the beginning of the second semester to assess whether students are able to demonstrate mastery of TEKS that have been taught, as well as assess TEKS that have not been taught.
- Blueprint Assessment 2 should help teachers make instructional decisions regarding time spent on whole class instruction for TEKS that have not been taught, as well as time spent on TEKS in tutorial settings – for whole class and/or small group.



GRADE 8

STAAR

Blueprint

Assessment 1

TEKSING TOWARD STAAR
Mathematics Blueprint Assessment 1
Grade 8

Teacher Notes:

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Remember to encourage your students to utilize the Grade 8 Mathematics Reference Materials. You might consider copying the chart on cardstock for stability when students are using the rulers to answer test items.

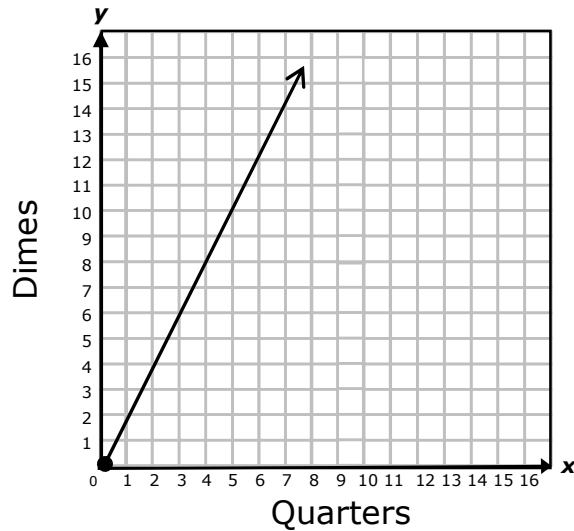
TEKSING TOWARD STAAR
Mathematics Blueprint Assessment 1
Grade 8
Answer Key, Category/Standard and TEKS Correlation

Question	Answer	Category/ Standard	TEKS	Question	Answer	Category/ Standard	TEKS
1	A	2/Readiness	8.4B	29	C	3/Supporting	8.8D
2	G	1/Readiness	8.2D	30	G	1/Supporting	8.2C
3	B	2/Supporting	8.4A	31	A	2/Supporting	8.8A
4	H	3/Readiness	8.3C	32	G	3/Readiness	8.10C
5	D	4/Supporting	8.5D	33	C	2/Readiness	8.4C
6	G	3/Supporting	8.3A	34	F	3/Readiness	8.3C
7	C	2/Supporting	8.5A	35	D	2/Readiness	8.4B
8	G	3/Supporting	8.6C	36	H	3/Readiness	8.7A
9	B	2/Supporting	8.5B	37	B	2/Supporting	8.8B
10	F	3/Readiness	8.7A	38	F	2/Readiness	8.5G
11	D	2/Readiness	8.4C	39	A	3/Readiness	8.7B
12	F	3/Supporting	8.6A	40	G	4/Readiness	8.5D
13	B	4/Readiness	8.12D	41	C	2/Supporting	8.9A
14	J	1/Supporting	8.2B	42	G	2/Readiness	8.5I
15	2700	2/Supporting	8.5E	43	C	3/Supporting	8.10A
16	G	3/Supporting	8.7D	44	F	4/Readiness	8.7C
17	D	2/Readiness	8.5G	45	1147.5	2/Supporting	8.5E
18	75	3/Supporting	8.10D	46	H	1/Readiness	8.2D
19	D	2/Readiness	8.5I	47	A	2/Readiness	8.5G
20	H	3/Readiness	8.7B	48	G	1/Readiness	8.2D
21	C	3/Readiness	8.7C	49	A	2/Readiness	8.4B
22	H	4/Supporting	8.5C	50	J	3/Readiness	8.7C
23	B	2/Readiness	8.8C	51	B	4/Supporting	8.11B
24	J	4/Readiness	8.5D	52	H	3/Readiness	8.10C
25	C	2/Readiness	8.8C	53	C	3/Readiness	8.3C
26	7.8	3/Readiness	8.7C	54	H	4/Supporting	8.11B
27	B	4/Readiness	8.12D	55	A	2/Readiness	8.5I
28	G	2/Supporting	8.5H	56	H	4/Readiness	8.12D

The Mathematical Process Standards student expectations will be incorporated into test questions across reporting categories since the application of mathematical process standards is part of each knowledge statement. Thus, the TEKS column of each question contains only the Category 1-4 TEKS listed.

TEKSING TOWARD STAAR
Mathematics Blueprint Assessment 1
Grade 8

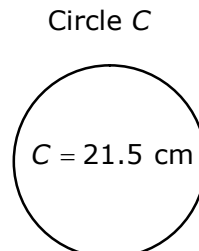
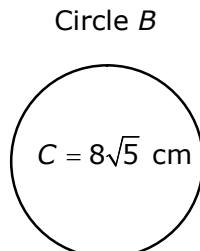
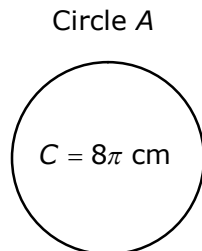
1. The graph below shows the relationship between the number of quarters and the number of dimes in a coin collection.



Based on the information in the graph, what is the unit rate in dimes per quarter?

- A 2 dimes per quarter
- B 3 dimes per quarter
- C 1.5 dimes per quarter
- D Not Here

2. The circumference of three circles are shown. The circles are **not** drawn to scale.

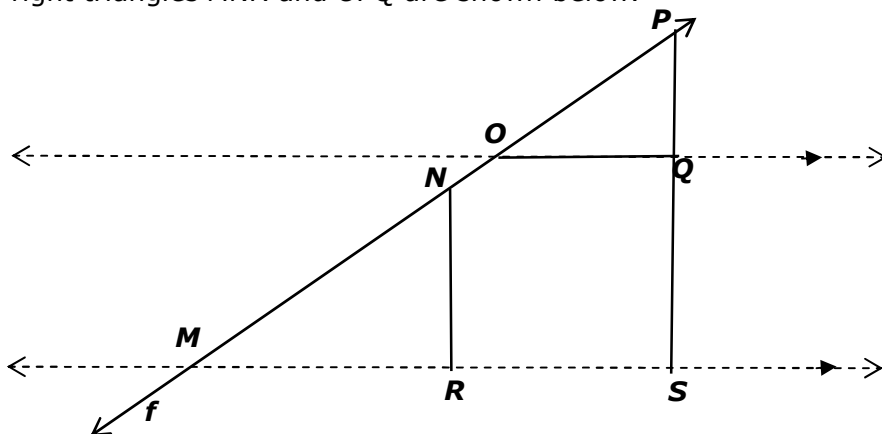


Which list shows the circles from least circumference to greatest circumference?

- F Circle A, circle B, circle C
- G Circle B, circle C, circle A
- H Circle B, circle A, circle C
- J Circle C, circle A, circle B

TEKSING TOWARD STAAR
Mathematics Blueprint Assessment 1
Grade 8

3. Similar right triangles MNR and OPQ are shown below.



Based on this information, which statement is true?

- A** The slope of the hypotenuse of triangle MNR is less than the slope of the hypotenuse of triangle OPQ .
- B** The slope of the hypotenuse of triangle MNR is equal to the slope of the hypotenuse of triangle OPQ .
- C** The slope of the hypotenuse of triangle MNR is greater than the slope of the hypotenuse of triangle OPQ .
- D** The relationship between the slope of the hypotenuse of triangle MNR and the slope of triangle OPQ cannot be determined.

4. Which of the following describes a dilation that is a reduction?

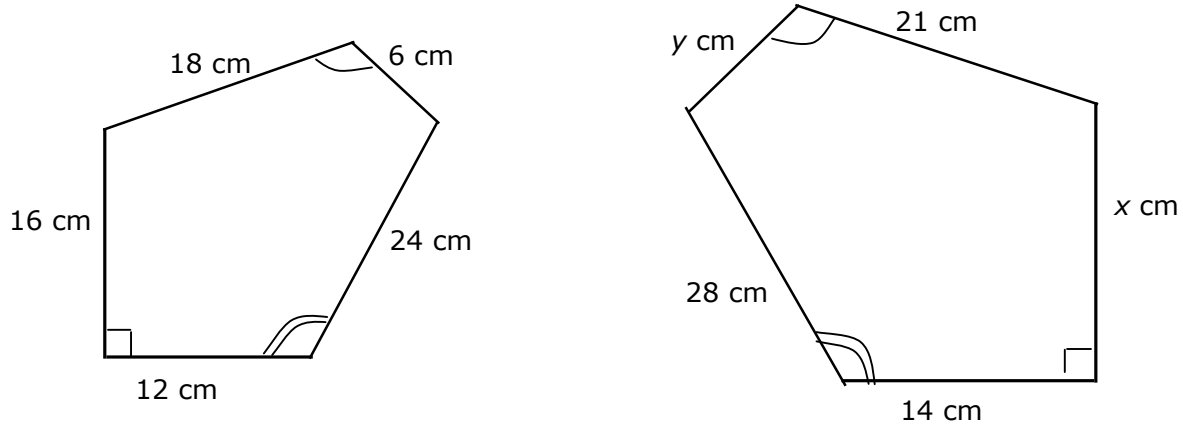
- F** $(x, y) \rightarrow (2x, 2y)$
- G** $(x, y) \rightarrow (5x, 5y)$
- H** $(x, y) \rightarrow (0.2x, 0.2y)$
- J** $(x, y) \rightarrow (1.2x, 1.2y)$

5. If a set of data points has a trend line of $y = 3.5x - 4$, what is the predicted value of x when $y = 41.5$?

- A** 12
- B** 15
- C** 18
- D** 13

TEKSING TOWARD STAAR
Mathematics Blueprint Assessment 1
Grade 8

6. The figures below are similar polygons.



Which proportion must be true?

F $\frac{28}{24} = \frac{21}{x}$

G $\frac{18}{6} = \frac{y}{21}$

H $\frac{18}{16} = \frac{21}{x}$

J $\frac{24}{12} = \frac{21}{y}$

7. The equation $C = 2.25h$ represents the cost of h ham sandwiches at Dean's Deli. Which table represents this equation?

Cost of Ham Sandwiches

A

h	1	3	5	7
C	2.25	3.75	10.00	15.50

Cost of Ham Sandwiches

C

h	1	3	5	7
C	2.25	6.75	11.25	15.75

Cost of Ham Sandwiches

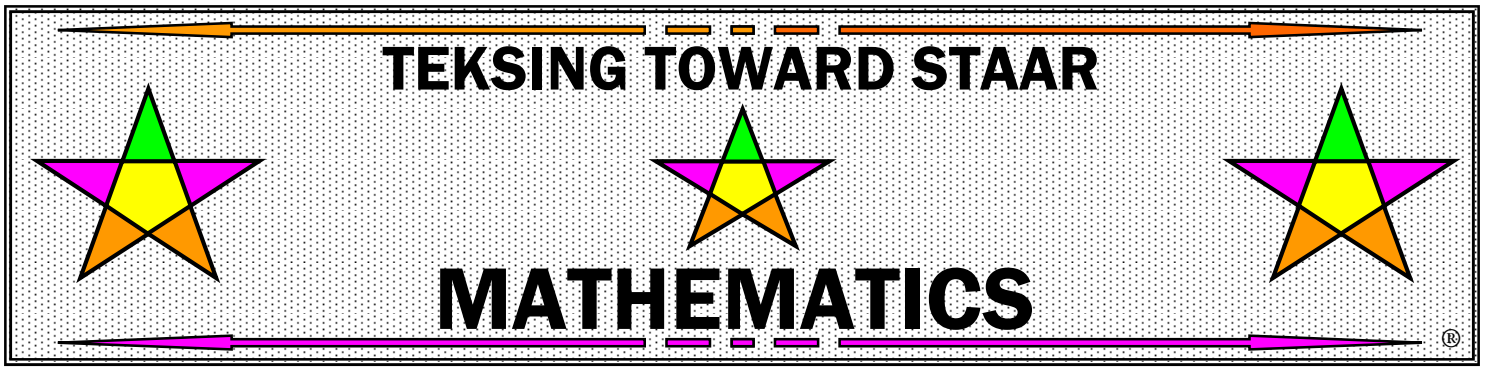
B

h	1	3	5	7
C	2.25	6.50	11.25	17.50

Cost of Ham Sandwiches

D

h	1	3	5	7
C	2.25	3.75	10.25	16.75



GRADE 8

STAAR

Blueprint Assessment 2

TEKSING TOWARD STAAR
Mathematics Blueprint Assessment 2
Grade 8

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TEKSING TOWARD STAAR
Mathematics Blueprint Assessment 2
Grade 8
Answer Key, Category/Standard and TEKS Correlation

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3	D	2/Supporting	8.8B	31	C	3/Readiness	8.7B
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TEKSING TOWARD STAAR
Mathematics Blueprint Assessment 2
Grade 8

1. Marty is a long distance swimmer. His coach recorded the following data during one of his practice sessions.

Number of Laps	Number of Minutes
4	5
8	10
14	17.5

If Marty continues to swim at this rate, how many laps will he swim in a 45 minute practice session?

- A** 40
- B** 30
- C** 36
- D** 45

-
2. Margaret was asked to write three algebraic representations that would describe a reduction dilation. She wrote the following:

a. $(x, y) \rightarrow \left(\frac{1}{2}x, \frac{1}{2}y\right)$ b. $(x, y) \rightarrow \left(\frac{3}{4}x, \frac{3}{4}y\right)$ c. $(x, y) \rightarrow \left(\frac{7}{10}x, \frac{7}{10}y\right)$

Which of Margaret's representations describe a reduction dilation?

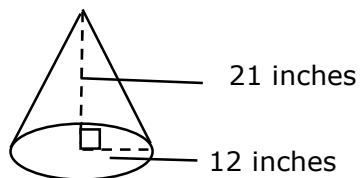
- F** a and b only
- G** a and c only
- H** All of the above
- J** None of the above

-
3. Which real-world situation can **not** be represented by $x + 8 = 2x + 4$?

- A** James' age increased by 8 years is the same as twice his age increased by 4 years? What is James' age now?
- B** A number added to 8 is the same as 4 increased by twice the number. What is the number, x ?
- C** Two triangles are congruent. The base of triangle A is 8 units more than its height. The base of triangle B is 4 units more than twice its height. What is x , the height of the triangles?
- D** If a number is increased by 8, then it will equal 4 times the number increased by 2. What is x , the number?

TEKSING TOWARD STAAR
Mathematics Blueprint Assessment 2
Grade 8

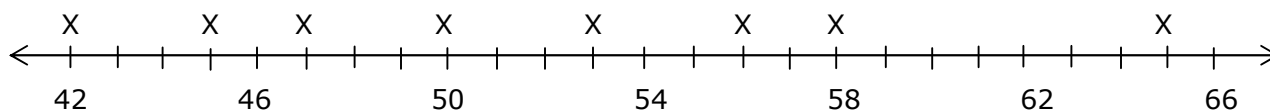
4. A cone has a radius that is 12 inches and a height of 21 inches.



What is the approximate volume of the cone?

- F** 9,495 in.³ **H** 3,165 in.³
G 264 in.³ **J** 1,809 in.³

5. Look at the data plotted on the line below.



Which describes the mean absolute deviation of the data?

- A** 6
B 5.75
C 7.5
D 4

6. If $\triangle RST \sim \triangle XYZ$ and the triangles are not congruent, which of the following statements will be true?

- F** $\frac{RS}{XY} = \frac{ST}{XZ}$
G $\frac{RT}{XY} = \frac{ST}{YZ}$
H $\frac{RS}{XY} = \frac{ST}{YZ}$
J $\frac{RS}{XY} = 1$