Example Items

Mathematics 6

Mathematics 6 Example Items are a **representative set** of items for the ACP. Teachers may use this set of items along with the test blueprint as guides to prepare students for the ACP. On the last page, the correct answer, content SE and SE justification are listed for each item.

The specific part of an SE that an Example Item measures is NOT necessarily the only part of the SE that is assessed on the ACP. None of these Example Items will appear on the ACP.

Teachers may provide feedback regarding Example Items.

(1) Download the Example Feedback Form and email it. The form is located on the homepage of Assessment.dallasisd.org.

OR

(2) To submit directly, click "Example Feedback" **after** you login to the Assessment website.

First Semester
2017–2018
Code #: 1061

STAAR GRADE 6 MATHEMATICS REFERENCE MATERIALS

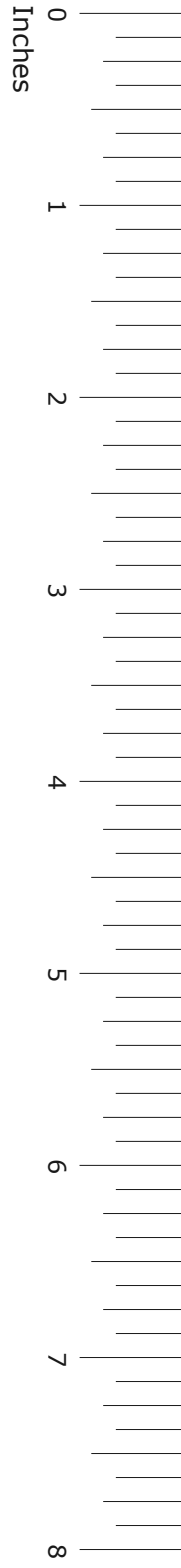
STAAR® State of Texas Assessments of Academic Readiness

AREA

Triangle	$A = \frac{1}{2}bh$
Rectangle or parallelogram	$A = bh$
Trapezoid	$A = \frac{1}{2}(b_1 + b_2)h$

VOLUME

Rectangular prism	$V = Bh$



STAAR GRADE 6 MATHEMATICS REFERENCE MATERIALS

LENGTH

Customary	Metric
1 mile (mi) = 1,760 yards (yd)	1 kilometer (km) = 1,000 meters (m)
1 yard (yd) = 3 feet (ft)	1 meter (m) = 100 centimeters (cm)
1 foot (ft) = 12 inches (in.)	1 centimeter (cm) = 10 millimeters (mm)

VOLUME AND CAPACITY

Customary	Metric
1 gallon (gal) = 4 quarts (qt)	1 liter (L) = 1,000 milliliters (mL)
1 quart (qt) = 2 pints (pt)	
1 pint (pt) = 2 cups (c)	
1 cup (c) = 8 fluid ounces (fl oz)	

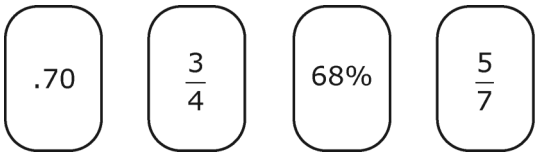
WEIGHT AND MASS

Customary	Metric
1 ton (T) = 2,000 pounds (lb)	1 kilogram (kg) = 1,000 grams (g)
1 pound (lb) = 16 ounces (oz)	1 gram (g) = 1,000 milligrams (mg)

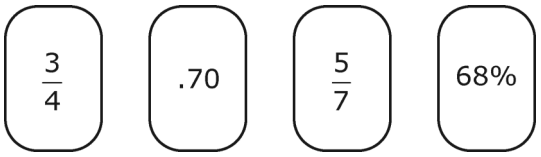
MIDDLE SCHOOL

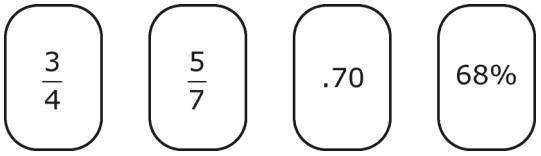
EXAMPLE ITEMS Mathematics 6, Sem 1

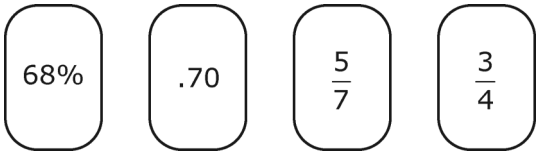
1 Yulie wanted to put her flash cards in order before putting them away.

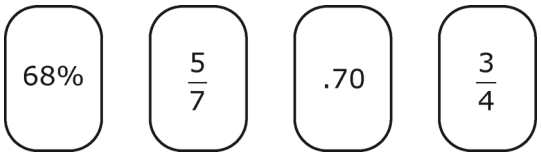


What is the order from greatest to least?

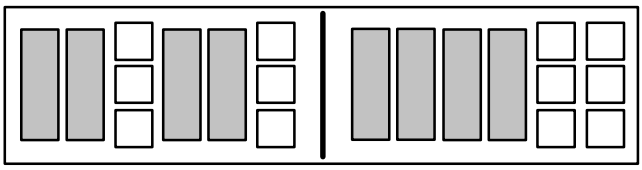
A 

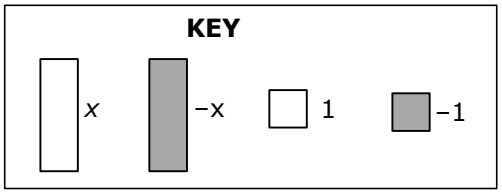
B 

C 

D 

2 Hanna created a model using algebra tiles to show that two expressions are equivalent.





Which expressions are equivalent to each other and reflect Hannah's model?

A $-2x + 3 = -4x + 6$

B $2x - 3 = 4x - 6$

C $2(-2x + 3) = -4x + 6$

D $2(2x - 3) = 4x - 6$

EXAMPLE ITEMS Mathematics 6, Sem 1

3 Which statement is true for the answer of $17 \times \frac{4}{7}$?

A The answer will be less than 17 because $\frac{4}{7}$ is less than 1.

B The answer will be less than 17 because $\frac{4}{7}$ is greater than 1.

C The answer will be greater than 17 because $\frac{4}{7}$ is less than 1.

D The answer will be greater than 17 because $\frac{4}{7}$ is greater than 1.

4 Wyatt has 32 marbles in his collection. Twenty of his marbles are red, four are blue, and the rest are green. What part of Wyatt's marbles are red?

A $\frac{1}{8}$

B $\frac{1}{4}$

C $\frac{3}{8}$

D $\frac{5}{8}$

5 According to her parents, Bonita must be at least 14 years old to see a movie without a chaperone. If she is 11 years old now, which inequality is used to find *y*, the number of years Bonita must wait until her parents will let her go to a movie unchaperoned?

A $11 + y > 14$

B $11 + y \geq 14$

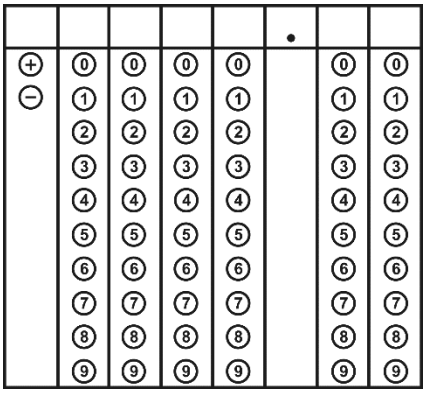
C $11 + y < 14$

D $11 + y \leq 14$

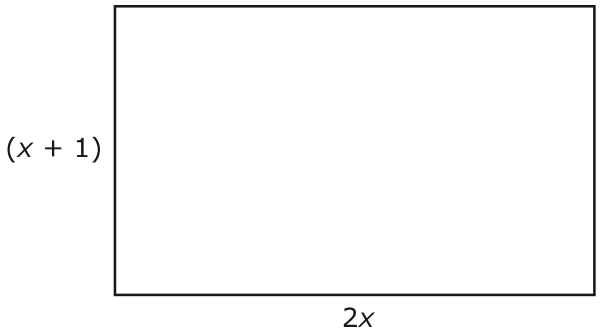
EXAMPLE ITEMS Mathematics 6, Sem 1

6 Chapman wants to purchase a gift for his mother that costs \$55.75. If he has already saved $\frac{2}{5}$ of this amount, how much money does Chapman have saved?

Record the answer and fill in the bubbles on the grid provided. Be sure to use the correct place value.



7 Oscar wrote the expression $2(x + 1) + 2(2x)$ to represent the perimeter of the rectangle shown.



Which expression is equivalent to Oscar's expression?

A $3x + 1$

B $3x + 2$

C $6x + 1$

D $6x + 2$

8 Which two expressions are equivalent?

A $6(x - 4)$ and $6 \bullet x - 6 \bullet 4$

B $(2 + x) \bullet 3$ and $2 + (x \bullet 3)$

C $8 \div (9 - x)$ and $8 \div (x - 9)$

D $(x + 5) \div 7$ and $x + (5 \div 7)$

9 An airplane is at 25% of its cruising altitude. If the plane is at 3,000 feet, what is the cruising altitude?

A 750 feet

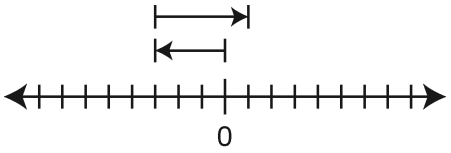
B 2,250 feet

C 12,000 feet

D 75,000 feet

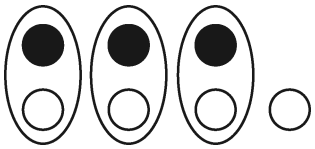
10 Which model represents the expression $-3 \bullet 4$?

A

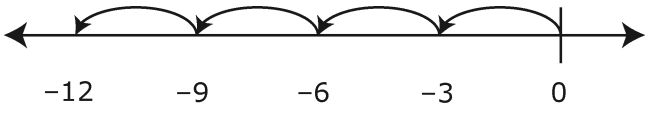


B

C

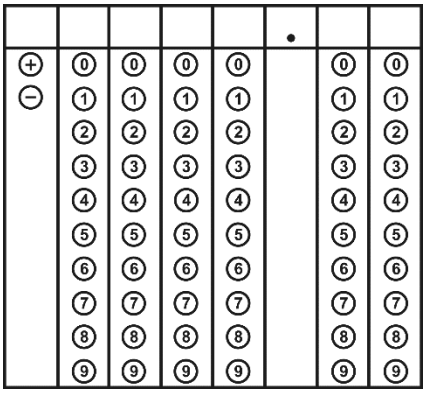


D



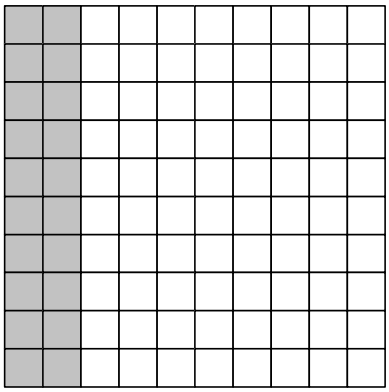
11 La'Vasha noticed that she caught six pigeons for every turtle when she played Pocket Monster Walk. If La'Vasha caught 102 pigeons, how many turtles did she catch?

Record the answer and fill in the bubbles on the grid provided. Be sure to use the correct place value.



12 If Laura got 4 out of 5 questions correct on her test, which model represents Laura's test score?

A



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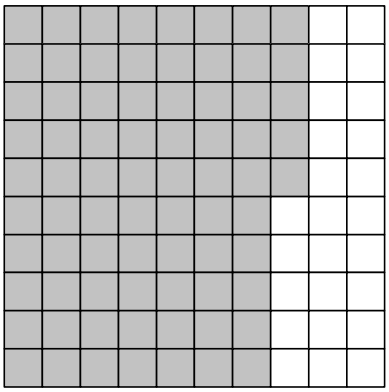
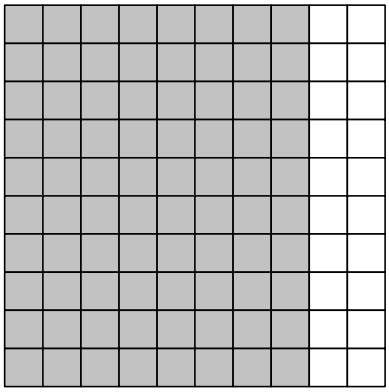
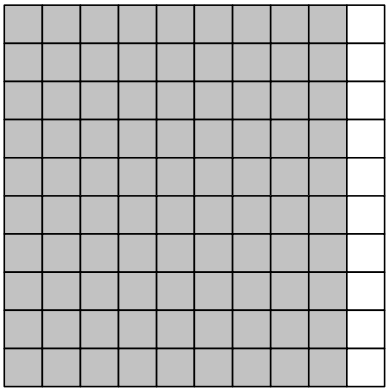


B



D



EXAMPLE ITEMS Mathematics 6, Sem 1

13 Mya is catering a special event for 10 people. One of the recipes Mya uses requires 9 pounds of chicken and serves 15 people. How many pounds of chicken will Mya need in order to serve 10 people?

A 2 pounds

B 5 pounds

C 6 pounds

D 7 pounds

14 What is the prime factorization of 96?

A $2^5 \cdot 3$

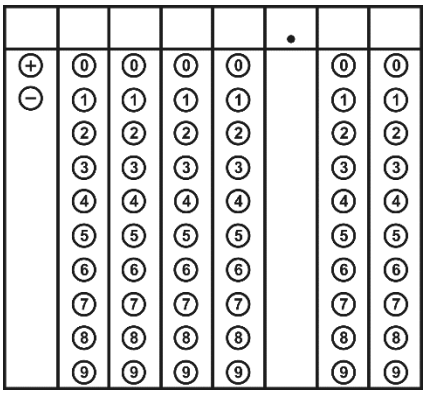
B $2 \cdot 3 \cdot 4^2$

C $2 \cdot 3^5$

D $2 \cdot 3^2 \cdot 4^2$

15 If Katie made 9 quarts of punch for a birthday party, how many ounces of punch did she make?

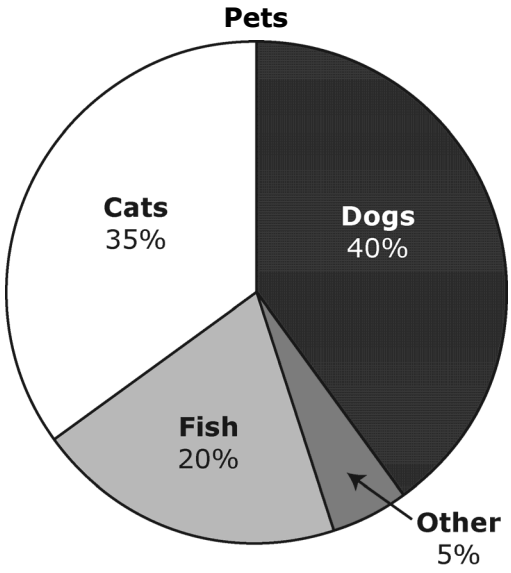
Record the answer and fill in the bubbles on the grid provided. Be sure to use the correct place value.



Dallas ISD - Example Items

EXAMPLE ITEMS Mathematics 6, Sem 1

16 Mr. May surveyed his students about the pets they have at home. He displayed the results in a circle graph as shown.



If the students have a total of 120 pets, how many were dogs?

A 3

B 30

C 48

D 60

17 Soar High University theater arts students will perform in a theatrical production, "We Love to Dance." The cost of admission for each guest is shown in the table.

Theatrical Production Prices

Number of Guests, *g*	Admission Cost, *c*
1	$7
2	$14
3	$21
4	$28

Which equation is used to determine *c*, the cost of admission for *g* guests?

A $c = 7g$

B $c = 14g$

C $c = 2g + 5$

D $c = g + 6$

EXAMPLE ITEMS Mathematics 6 Key, Sem 1

Item#	Key	SE	SE Justification
1	B	6.2D	Order a set of rational numbers arising from mathematical and real-world contexts.
2	C	6.7C	Determine if two expressions are equivalent using concrete models, pictorial models, and algebraic representations.
3	A	6.3B	Determine, with and without computation, whether a quantity is increased or decreased when multiplied by a fraction, including values greater than or less than one.
4	D	6.4G	Generate equivalent forms of fractions, decimals, and percents using real-world problems, including problems that involve money.
5	B	6.9A	Model and solve one-variable, one-step equations and inequalities that represent problems, including geometric concepts.
6	22.30	6.3E	Multiply and divide positive rational numbers fluently.
7	D	6.7D	Generate equivalent expressions using the properties of operations: inverse, identity, commutative, associative, and distributive properties.
8	A	6.7D	Generate equivalent expressions using the properties of operations: inverse, identity, commutative, associative, and distributive properties.
9	C	6.5B	Solve real-world problems to find the whole given a part and the percent.
10	D	6.3C	Represent integer operations with concrete models.
11	17	6.10A	Model and solve one-variable, one-step equations and inequalities that represent problems, including geometric concepts.
12	B	6.4F	Represent benchmark fractions and percents such as 1%, 10%, 25%, $33\frac{1}{3}$ %, and multiples of these values using 10 x 10 grids, strip diagrams, number lines, and numbers.
13	C	6.4B	Apply qualitative and quantitative reasoning to solve prediction and comparison real-world problems involving ratios and rates.
14	A	6.7A	Generate equivalent numerical expressions using order of operations, including whole number exponents and prime factorization.
15	288	6.4H	Convert units within a measurement system, including the use of proportions and unit rates.
16	C	6.5B	Solve real-world problems finding the whole given a part and the percent, to find the part given the whole and the percent, and to find the percent given the part and the whole, including the use of concrete and pictorial models.
17	A	6.9A	Write one-variable, one-step equations and inequalities to represent constraints or conditions within problems.