

# Example Items

## Grade 4 Mathematics

**Grade 4 Mathematics 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](http://Assessment.dallasisd.org).

OR

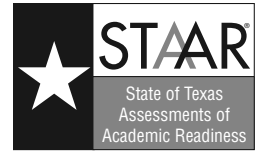
(2) To submit directly, click “Example Feedback” **after** you login to the [Assessment website](#).

First Semester

2017–2018

Code #: 1041

# STAAR GRADE 4 MATHEMATICS REFERENCE MATERIALS



Inches



## PERIMETER

Square  $P = 4s$

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Rectangle  $P = l + w + l + w$  or  $P = 2l + 2w$

## AREA

Square  $A = s \times s$

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Rectangle  $A = l \times w$

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# STAAR GRADE 4 MATHEMATICS REFERENCE MATERIALS



## LENGTH

### Customary

1 mile (mi) = 1,760 yards (yd)

1 yard (yd) = 3 feet (ft)

1 foot (ft) = 12 inches (in.)

### Metric

1 kilometer (km) = 1,000 meters (m)

1 meter (m) = 100 centimeters (cm)

1 centimeter (cm) = 10 millimeters (mm)

## VOLUME AND CAPACITY

### Customary

1 gallon (gal) = 4 quarts (qt)

1 quart (qt) = 2 pints (pt)

1 pint (pt) = 2 cups (c)

1 cup (c) = 8 fluid ounces (fl oz)

### Metric

1 liter (L) = 1,000 milliliters (mL)

## WEIGHT AND MASS

### Customary

1 ton (T) = 2,000 pounds (lb)

1 pound (lb) = 16 ounces (oz)

### Metric

1 kilogram (kg) = 1,000 grams (g)

1 gram (g) = 1,000 milligrams (mg)

## TIME

1 year = 12 months

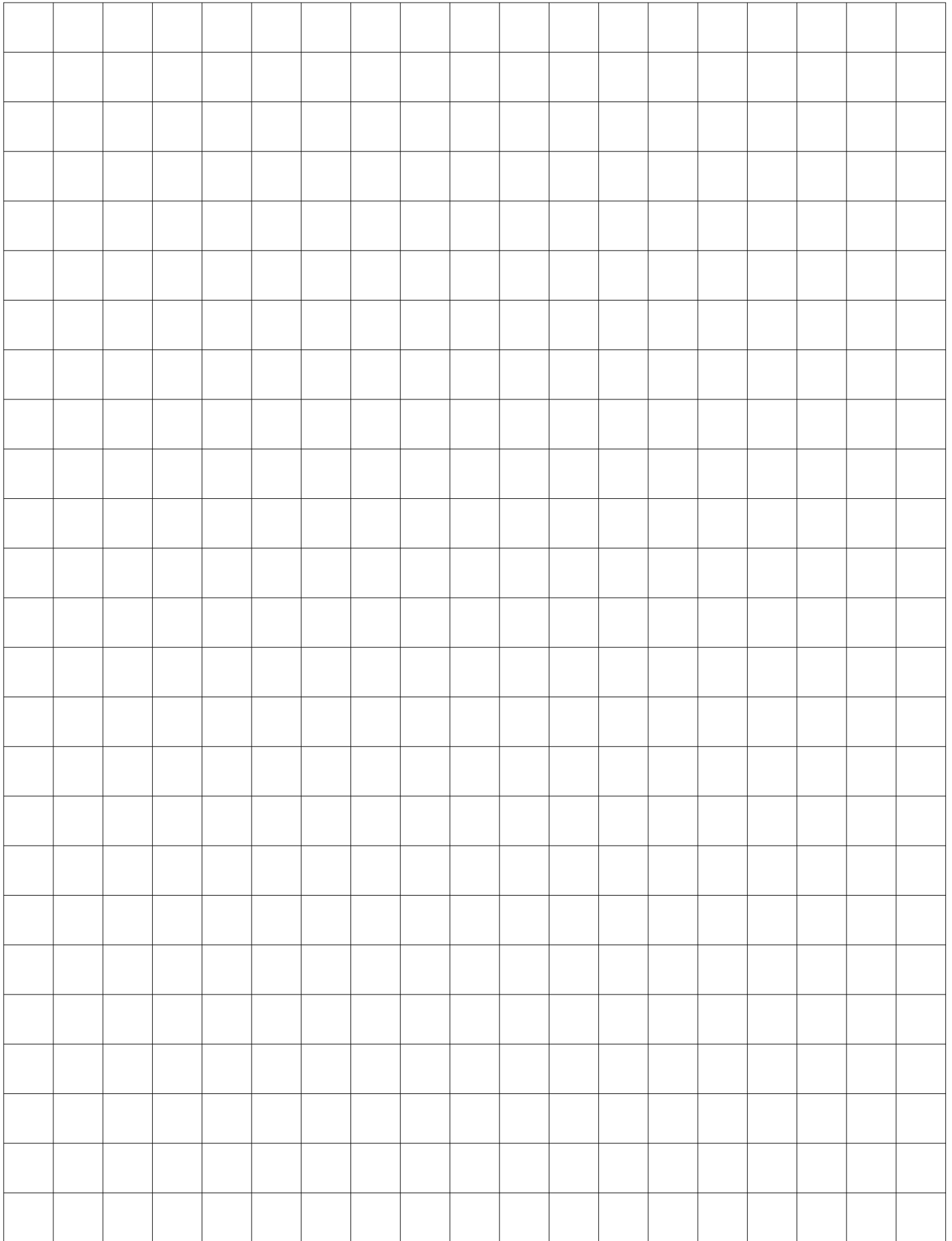
1 year = 52 weeks

1 week = 7 days

1 day = 24 hours

1 hour = 60 minutes

1 minute = 60 seconds



## EXAMPLE ITEMS Grade 4 Mathematics, Sem 1

1 The area of the school gym is 60,427.23 square feet. What is the area expressed in expanded notation?

- A  $(6 \times 10,000) + (2 \times 10) + (7 \times 1) + (2 \times 0.1) + (3 \times 0.01)$
- B  $(6 \times 10,000) + (4 \times 100) + (2 \times 10) + (7 \times 1) + (2 \times 0.1) + (3 \times 0.01)$
- C  $(6 \times 10,000) + (4 \times 100) + (2 \times 10) + (7 \times 1) + (2 \times 0.01) + (3 \times 0.01)$
- D  $(6 \times 10,000) + (4 \times 100) + (2 \times 10) + (7 \times 1) + (2 \times 0.1) + (3 \times 0.1)$

2 Lois visited a music store and counted the number of strings on the electric guitars. The table shows the number of guitar strings she saw on different guitars.

Number of Strings	Number of Guitars
24	4
36	6
42	7
54	9

If the pattern continues, how many strings do 12 guitars have?

- A 75
- B 72
- C 24
- D 2

3 At a bake sale, a baker sold 92 cupcakes at \$3 each. The baker spent \$85 on ingredients. How much profit did the baker make?

- A \$191.00
- B \$211.00
- C \$276.00
- D \$361.00

## EXAMPLE ITEMS Grade 4 Mathematics, Sem 1

- 4 Amanda sold lemonade every Saturday for a month. The money she received from the sale of lemonade is shown.



What fraction and decimal represent how much money Amanda made selling lemonade?

- A**  $8\frac{23}{10}$  and 8.23
- B**  $8\frac{23}{100}$  and 8.23
- C**  $\frac{23}{100}$  and .23
- D**  $\frac{23}{10}$  and .23

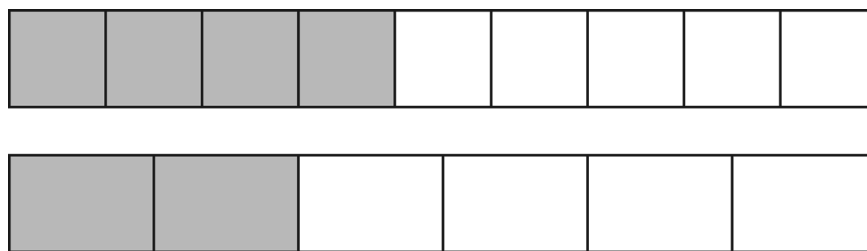
## EXAMPLE ITEMS Grade 4 Mathematics, Sem 1

- 5 Crystal drew the number line shown.



What is the value of point  $M$  on Crystal's number line?

- A** 4.4  
**B** 4.8  
**C** 5.1  
**D** 5.8
- 6 Two models are shaded to represent two different fractions.

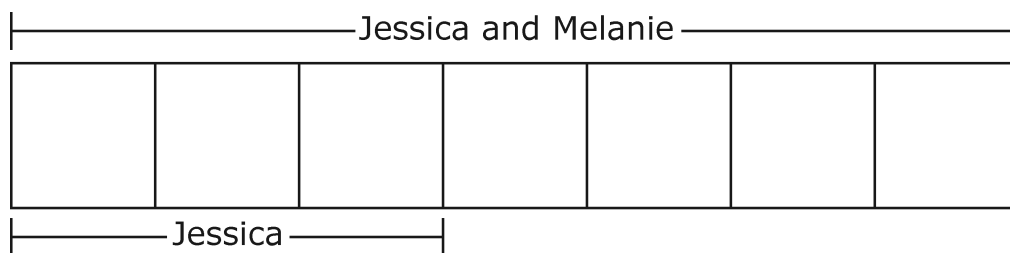


Which statement correctly compares the two fractions?

- A**  $\frac{4}{9} < \frac{2}{6}$   
**B**  $\frac{4}{9} > \frac{2}{6}$   
**C**  $\frac{2}{9} > \frac{4}{6}$   
**D**  $\frac{4}{9} = \frac{2}{6}$

## EXAMPLE ITEMS Grade 4 Mathematics, Sem 1

- 7 Jessica and Melanie baked 7 cupcakes. Jessica decorated  $\frac{3}{7}$  of the cupcakes with chocolate icing.



How many cupcakes did Melanie decorate?

- A**  $\frac{4}{7}$
- B**  $\frac{7}{4}$
- C**  $\frac{7}{3}$
- D**  $\frac{7}{7}$
- 8 Bryson went to the store to buy vegetables. A bag of potatoes was \$2.59. Broccoli was \$1.38 a pound. A bag of baby carrots was \$0.89. Bryson bought two bags of potatoes, one pound of broccoli, and one bag of baby carrots. What was his total cost?
- A** \$7.45
- B** \$5.75
- C** \$5.65
- D** \$4.86



## EXAMPLE ITEMS Grade 4 Mathematics, Sem 1

9 Roberta and her mom went to the mall. She counted 37 rows with 29 parking spots in each row. How many cars can park in the mall's parking lot?

- A 407 cars
- B 973 cars
- C 1,013 cars
- D 1,073 cars

10 Samuel spent 378 minutes last week playing three different video games. Samuel played each game an equal amount of time. How many minutes did he play each game during the week?

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

			.		
0	0	0		0	0
1	1	1		1	1
2	2	2		2	2
3	3	3		3	3
4	4	4		4	4
5	5	5		5	5
6	6	6		6	6
7	7	7		7	7
8	8	8		8	8
9	9	9		9	9

11 Mr. Roberts bought 44 packs of pencils. Each pack has 18 pencils. About how many pencils did Mr. Roberts buy for his class?

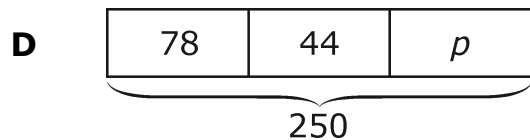
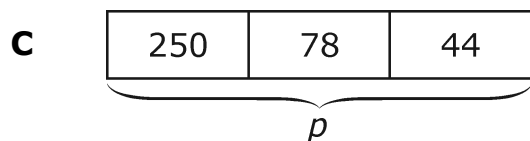
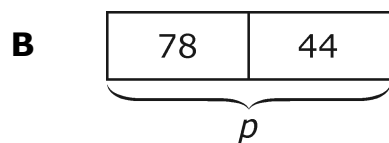
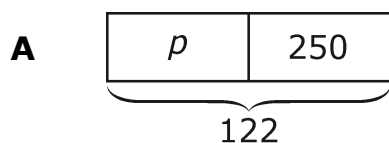
- A 60
- B 80
- C 700
- D 800

## EXAMPLE ITEMS Grade 4 Mathematics, Sem 1

**12** Mr. Blake earned \$49 for each hour he worked. In March, he worked 7 days and worked 8 hours each day. How much money did Mr. Blake earn in March?

- A** \$392
- B** \$343
- C** \$2,134
- D** \$2,744

**13** Joey's mom gave him \$250 to spend on school clothes. He spent \$78 on shoes, \$44 on shirts and the remaining on pants. Which diagram shows a way to find  $p$ , the amount Joey spent on pants?

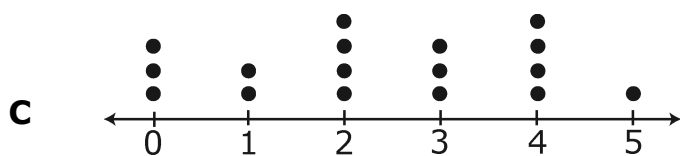
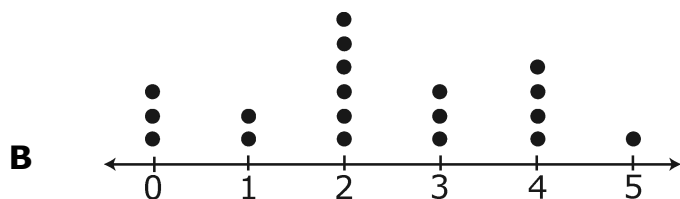
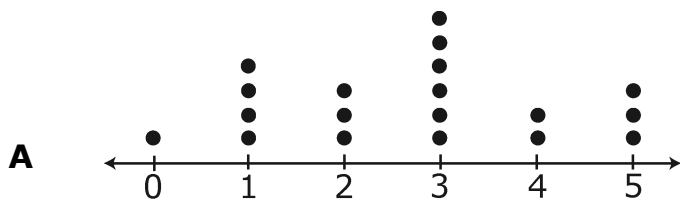


## EXAMPLE ITEMS Grade 4 Mathematics, Sem 1

14 The table shows the number of pets each student in Mrs. Garcia's class has.

Number of Siblings	Frequency
0	III
1	II
2	HHH I
3	III
4	IIII
5	I

Which dot plot represents the data on the table?



**EXAMPLE ITEMS Grade 4 Mathematics Key, Sem 1**

<b>Item#</b>	<b>Key</b>	<b>SE</b>	<b>SE Justification</b>
<b>1</b>	B	4.2B	Represent the value of the digit in whole numbers through 1,000,000,000 and decimals to the hundredths using expanded notation.
<b>2</b>	B	4.5B	Represent problems using an input-output table to generate a number pattern that follows a given rule representing the relationship of the values in the resulting sequence and their position in the sequence.
<b>3</b>	A	4.10B	Calculate profit in a given situation.
<b>4</b>	B	4.2G	Relate decimals to fractions that name tenths and hundredths.
<b>5</b>	B	4.2H	Determine the corresponding decimal to the tenths place of a specified point on a number line.
<b>6</b>	B	4.3D	Compare two fractions with different numerators and different denominators and represent the comparison using the symbols $>$ , $=$ , or $<$ .
<b>7</b>	A	4.3E	Represent and solve subtraction of fractions with equal denominators using pictorial models that build to the number line and properties of operations.
<b>8</b>	A	4.4A	Add whole numbers and decimals to the hundredths place using the standard algorithm.
<b>9</b>	D	4.4D	Use strategies and algorithms, including the standard algorithm, to multiply a two-digit number by a two-digit number. Strategies may include mental math, partial products, and the commutative, associative, and distributive properties.
<b>10</b>	126	4.4F	Use strategies and algorithms, including the standard algorithm, to divide up to a four-digit dividend by a onedigit divisor.
<b>11</b>	D	4.4G	Round to the nearest, 10, to estimate solutions involving whole numbers.
<b>12</b>	D	4.4H	Solve with fluency two-step problems involving multiplication.
<b>13</b>	D	4.5A	Represent multi-step problems involving the four operations with whole numbers using strip diagrams with a letter standing for the unknown quantity.
<b>14</b>	B	4.9A	Represent data on a frequency table, marked with whole numbers.