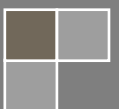


Grade  
4

# SRPSD Math Common Assessment

## Answer Key



## Instructions

### Administering the Assessments

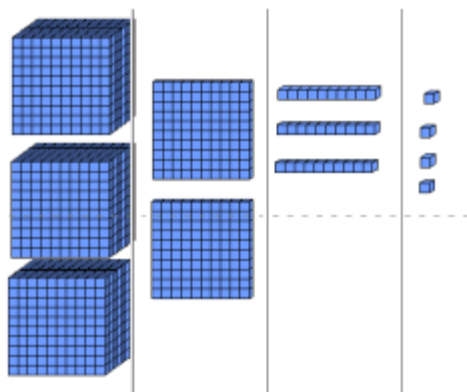
1. This assessment has been developed with the intention of being split up into individual outcomes and given upon completion of instruction/units throughout the year and **not** as a comprehensive test in June.
2. The division expectation is for the assessment to be given as **both** a pre (formative) and post (summative) assessment which will be entered into SRPSD database.
3. Use professional judgment on whether this assessment is given orally or in written form. The intent is to assess mathematical understanding.
4. Refer to the last few pages for any paper manipulatives needed to administer certain questions. Teachers will have to print off a copy for their class.
5. Calculator use is only allowed where indicated.
6. In the case that a student answers a level 4 question correctly but misses the level 2 or 3, the teacher will need to:
  - a) reassess
  - b) use professional judgment (teacher knows student best).
7. This assessment is not intended to assess ELA reading or writing outcomes therefore questions can be read to students and answers can be scribed when needed.
8. The corrected pre-tests are not to be showed to the students as it will affect post-test results.

**Part A: Number Strand**

**N4.1a** Demonstrate understanding of whole numbers to 10 000 by representing and describing.

<b>Beginning (1)</b>	<b>Approaching (2)</b>	<b>Proficiency (3)</b>	<b>Mastery (4)</b>
Student needs assistance to use base ten blocks to represent a quantity to 10 000.	Student is able to represent a quantity to 10 000 using base ten blocks.	Student is able to represent a quantity to 10 000 using symbolic representation.	Student is able to represent a quantity to 10 000 in a non-standard arrangement and explain.

1. Draw a picture to represent 3234.



2. Represent 3234 in expanded form.

$$3000 + 200 + 30 + 4$$

3. Oliver's answer for #2 was  $4 + 230 + 3000$ . Does Oliver's answer represent the same amount? Explain

Yes, because when I added these numbers together it still equaled 3234. He put the hundreds and tens together but that doesn't change the overall quantity.

**Teacher Information****Level 1**

Student was not able to complete #1 independently.

**Level 2**

Student answered #1 correctly.

**Level 3**

Student answered #1 and #2 correctly.

**Level 4**

Student answered # 1, #2, and #3 correctly.

**Part A: Number Strand**

**N4.1b** Demonstrate understanding of whole numbers to 10 000 by comparing and ordering.

<b>Beginning (1)</b>	<b>Approaching (2)</b>	<b>Proficiency (3)</b>	<b>Mastery (4)</b>
Student needs assistance to compare numbers to 10 000.	Student is able to compare numbers to 10 000.	Student is able to order a set of numbers to 10 000.	Student is able to order a set of numbers to 10 000 and explain their strategy.

1. Compare these two numbers using “greater than” or “less than”.

4254      4425

4254 < 4425 **or**  
 4425 > 4254 **or**  
 4254 is less than 4425 **or**  
 4425 is greater than 4254

2. Order the following numbers (least to greatest **or** greatest to least).

4254      4245      4425

4245, 4254, 4425

**or**

4425, 4254, 4245

3. Chloe ordered these numbers from greatest to least. Explain the strategy she used.

5422, 5014, 4475

Chloe looked at the 1000s place and saw that 5000 is larger than 4000. Then she looked at the 100s place and knew that 400 was more than no hundreds in the other number.

**Teacher Information****Level 1**

Student was not able to complete #1 independently.

**Level 2**

Student answered #1 correctly.

**Level 3**

Student answered #1 and #2 correctly.

**Level 4**

Student answered # 1, #2, and #3 correctly.

**Part A: Number Strand**

**N4.2a** Demonstrate an understanding of addition of whole numbers with answers to 10 000 (limited to 3 and 4-digit numerals).

<b>Beginning (1)</b>	<b>Approaching (2)</b>	<b>Proficiency (3)</b>	<b>Mastery (4)</b>
Student needs assistance adding numbers to 10 000.	Student can add numbers to 10 000 that do not require regrouping.	Student is able to add numbers to 10 000 using a regrouping strategy.	Student is able to solve situational addition story problems.

1. a) Solve the following number sentence.

$$7436 + 2141$$

$$7000 + 2000 = 9000$$

$$400 + 100 = 500$$

$$30 + 40 = 70$$

$$6 + 1 = 7$$

$$\mathbf{9577}$$

OR

$$7436$$

$$+2141$$

$$\mathbf{9577}$$

b) Solve the following number sentence.

$$2436 + 217$$

$$2436$$

$$+217$$

$$\mathbf{2653}$$

2. How many people went to the fair? 3642 people went to the fair on Friday. 4795 people went on Saturday.

$$3642$$

$$+4795$$

$$\mathbf{8437}$$

8437 people went to the fair.

**Teacher Information****Level 1**

Student was not able to complete #1a) independently.

**Level 2**

Student answered #1a) correctly.

**Level 3**

Student answered #1a) and #1b) correctly.

**Level 4**

Student answered # 1 and #2 correctly.

**Part A: Number Strand**

**N4.2b** Demonstrate an understanding of subtraction of whole numbers with answers to 10 000 (limited to 3 and 4-digit numerals)

<b>Beginning</b>	<b>Approaching</b>	<b>Proficiency</b>	<b>Mastery</b>
Student needs assistance subtracting numbers to 10 000.	Students can subtract numbers to 10 000 that do not require regrouping.	Student is able to subtract numbers to 10 000 using a regrouping strategy.	Student is able to solve situational subtraction story problems.

1. a) Solve the following:

$$6789 - 5432$$

$$\begin{array}{r} 6789 \\ -5432 \\ \hline 1357 \end{array}$$

b) Solve the following:

$$3454 - 1999$$

$$\begin{array}{r} 3454 \\ -1999 \\ \hline 1455 \end{array}$$

OR

$$3455 - 2000 = 1455$$

2. In 1971, the Prince Albert Raiders were formed. How many years have the Raiders been around?



$$\begin{array}{r} 2012 \\ -1971 \\ \hline 41 \end{array}$$

or

$$\begin{array}{r} 2103 \\ -1971 \\ \hline 42 \end{array}$$

or

$$1971 + \underline{\quad} = 2012$$

Student counted up

**Teacher Information****Level 1**

Student was not able to complete #1a) independently.

**Level 2**

Student answered #1a) correctly.

**Level 3**

Student answered #1a) and #1b) correctly.

**Level 4**

Student answered # 1 and #2 correctly.

**Part A: Number Strand****N4.2c Demonstrate understanding of estimation using addition or subtraction to 10 000.**

<b>Beginning (1)</b>	<b>Approaching (2)</b>	<b>Proficiency (3)</b>	<b>Mastery (4)</b>
Student needs assistance to round numbers to 10 000.	Student is able to round numbers to 10 000.	Student is able to use a personal strategy to estimate an addition or subtraction problem.	Student is able to estimate an addition or subtraction problem and justify their reasoning.

1. For a read-a-thon, Natalie read 786 pages, Kevin read 815 pages, Mario read 623 pages, and altogether, they read over 2000 pages.

a) Is 2000 exact or an estimate? How do you know?



**Estimate** because there are ones and tens in the numbers and they don't add up to zero.

Or

The ones digits add up to 4 not zero.

- b) **About how many** more pages did Kevin read than Mario?

$$800 - 600 = 200$$

or

$$810 - 620 = 190$$

About 200 or 190 pages.

2. Justify your answer.

I rounded to the nearest hundred.

or

I rounded to the nearest ten.

**Teacher Information****Level 1**

Student was not able to complete #1a) independently.

**Level 2**

Student answered #1a) correctly.

**Level 3**

Student answered #1a) and #1b) correctly.

**Level 4**

Student answered # 1 and #2 correctly.

**Part A: Number Strand**

**N4.3** Demonstrate an understanding of multiplication of whole numbers (limited to numbers less than or equal to 10) by applying mental mathematics strategies and explaining the results of multiplying by 0 and 1.

<b>Beginning (1)</b>	<b>Approaching (2)</b>	<b>Proficiency (3)</b>	<b>Mastery (4)</b>
Student needs assistance to determine the result of a multiplication equation.	Student is able to provide an answer to solve a multiplication equation.	Student is able to provide an answer to solve a multiplication equation and explain an appropriate strategy.	Student is able to provide additional strategies to solve a multiplication fact.

1. Solve.

$$6 \times 7$$

42

2. What strategy did you use? If you know it automatically what strategy could you use?

I know  $5 \times 7 = 35$  and added 7 more.  
 I know  $3 \times 7 = 21$  and then doubled it.  
 I know  $6 \times 6 = 36$  then added another 7.

3. Jane was given the question  $6 \times 8$  and asked to explain her strategy. She explained that she skipped counted by 8 six times and got the answer of 48. She wants you to help come up with a more efficient way to solve  $6 \times 8$ . What is your strategy?

I know  $5 \times 8 = 40$  so I add one more group of eight.  
 I know  $4 \times 6$  is 24 so I can double the answer.  
 I know  $3 \times 8$  is 24 so I can double the answer.

**Teacher Information****Level 1**

Student was not able to complete #1 independently.

**Level 2**

Student answered #1 correctly.

**Level 3**

Student answered #1 and #2 correctly.

**Level 4**

Student answered # 1, #2 and #3 correctly.



**Part A: Number Strand**

**N4.4** Demonstrate an understanding of multiplication (2- or 3-digit by 1-digit) by using personal strategies for multiplication, with and without concrete materials, using arrays to represent multiplication, connecting concrete representations to symbolic representations, estimating products and solving problems.

<b>Beginning (1)</b>	<b>Approaching (2)</b>	<b>Proficiency (3)</b>	<b>Mastery (4)</b>
Student needs assistance to determine the result of a multiplication equation.	Student is able to use concrete representations/drawings to solve a multiplication equation.	Student is able to estimate and solve a 2 or 3 digit multiplication equation.	Student is able to solve a multiplication problem and explain their strategy.

1. Estimate the product.

$$5 \times 31$$

$$5 \times 30 = 150$$

2. Solve.

$$5 \times 31$$

$$150 + 5 = 155$$

or

31

x5

**155**

3. Explain the strategy for solving.

I multiplied  $5 \times 30 = 150$  then added  $5 \times 1 = 5$  so  
 $150 + 5 = 155$ .

I used the distributive property by multiplying  
 $5 \times 30$  and  $5 \times 1$  then added the products together  
to give me 155.

**Teacher Information****Level 1**

Student was not able to complete #1 independently.

**Level 2**

Student answered #1 correctly.

**Level 3**

Student answered #1 and #2 correctly.

**Level 4**

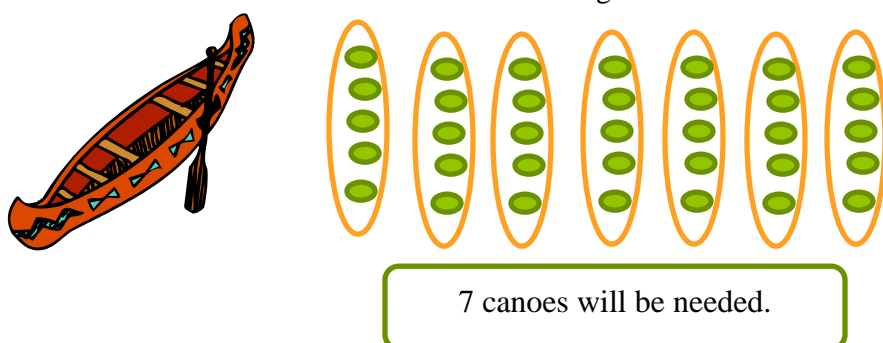
Student answered # 1, #2 and #3 correctly.

**Part A: Number Strand**

**N4.5** Demonstrate an understanding of division (1-digit divisor and up to 2-digit dividend) to solve problems by using personal strategies for dividing with and without concrete materials, estimating quotients, explaining the results of dividing by 1, solving problems involving division of whole numbers, and relating division to multiplication.

<b>Beginning (1)</b>	<b>Approaching (2)</b>	<b>Proficiency (3)</b>	<b>Mastery (4)</b>
Student needs assistance to determine the result of a division equation.	Student is able to use concrete representations/drawings to solve a division equation.	Student is able to estimate and solve a 2 or 3 digit division problem using a personal strategy.	Student is able to provide additional strategies to solve a division fact.

1. How many canoes will be needed? Grade 4 students are going on a canoe trip. There are 35 students in the class. 5 students can go in each canoe. Draw a picture to solve.



2. a) Estimate

$$49 \div 5$$

$$50 \div 5 = 10$$

- b) Solve.

$$49 \div 5$$

$$\begin{array}{r} 5 \overline{) 49} \\ \underline{45} \\ 4 \end{array} \quad \begin{array}{l} 9 \\ 9 \text{ r } 4 \end{array}$$

3. Ashley was given the question  $70 \div 7$  and asked to explain her strategy. She explained that she used long division to get an answer of 7. She wants you to help come up with a more efficient way to solve  $70 \div 7$ . What is your strategy?

I know my multiplication fact of  $7 \times 10$  is 70 so 7 is my answer.

**Teacher Information****Level 1**

Student was not able to complete #1 independently.

**Level 2**

Student answered #1 correctly.

**Level 3**

Student answered #2a) and #2b) correctly.

**Level 4**

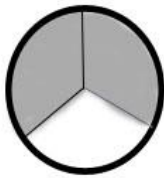
Student answered # 1, #2 and #3 correctly.

**Part A: Number Strand**

**N4.6** Demonstrate an understanding of fractions less than or equal to one by using concrete and pictorial representations to name and record fractions for the parts of a whole or a set, compare and order fractions, model and explain that for different wholes, two identical fractions may not represent the same quantity, and provide examples of where fractions are used.

Beginning (1)	Approaching (2)	Proficiency (3)	Mastery (4)
Student needs assistance to name fractions.	Student is able to name and record fractions.	Student is able to compare and order fractions.	Student is able to provide an example of when 2 identical fractions may not represent the same quantity.

1. Name the following fractions.



$$\frac{2}{3}$$



$$\frac{3}{4}$$

2. Order the following numbers.

$$\frac{1}{2}, 0, 1, \frac{2}{3}, \frac{3}{4}, \frac{3}{8}$$

$$0, \frac{3}{8}, \frac{1}{2}, \frac{2}{3}, \frac{3}{4}, 1$$

3. Lucy ate half a pizza and Matt ate half a pizza. However, Matt ate more pizza. Explain how that's possible.



Lucy's pizza was a medium and  
Matt's was a large...

**Teacher Information****Level 1**

Student was not able to complete #1 independently.

**Level 2**

Student answered #1 correctly.

**Level 3**

Student answered #1 and #2 correctly.

**Level 4**

Student answered # 1, #2 and #3 correctly.

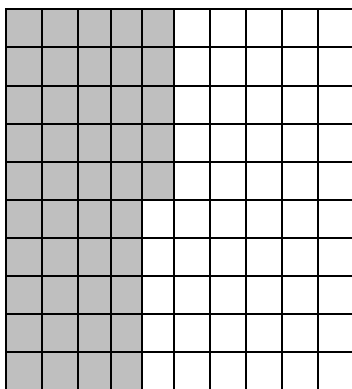
**Part A: Number Strand**

**N4.7** Demonstrate an understanding of decimal numbers in tenths and hundredths (pictorially, orally, in writing, and symbolically) by describing, representing, and relating to fractions.

<b>Beginning (1)</b>	<b>Approaching (2)</b>	<b>Proficiency (3)</b>	<b>Mastery (4)</b>
Student needs assistance to write decimal numbers.	Student is able to write decimal numbers from a drawing.	Student is able to relate decimals to fractions.	Student is able to provide everyday examples of decimal numbers.

1. Write the decimal that represents this picture.

0.45



2. Convert **0.09** to a fraction.

$$\frac{9}{100}$$

3. Provide an example of everyday context in which tenths or hundredths are used.

Money - \$5.36  
Measuring to build things  
Track and field - timing

**Teacher Information****Level 1**

Student was not able to complete #1 independently.

**Level 2**

Student answered #1 correctly.

**Level 3**

Student answered #1 and #2 correctly.

**Level 4**

Student answered # 1, #2 and #3 correctly.

**Part A: Number Strand**

**N4.8a** Demonstrate an understanding of addition of decimals limited to hundredths (concretely, pictorially, and symbolically) by using compatible numbers, estimating sums and differences, using mental math strategies, and solving problems.

<b>Beginning (1)</b>	<b>Approaching (2)</b>	<b>Proficiency (3)</b>	<b>Mastery (4)</b>
Student needs assistance adding decimals to 100ths.	Student can add decimals limited to 100ths that do not require regrouping.	Student is able to add decimals limited to 100ths using a regrouping strategy.	Student is able to solve situational addition story problems.

1. Solve.

$$2.43 + 1.52$$

$$\begin{array}{r} 2.43 \\ +1.52 \\ \hline 3.95 \end{array}$$

2. Solve.

$$14.86 + 2.7$$

$$\begin{array}{r} 14.86 \\ +2.7 \\ \hline 17.56 \end{array}$$

3. Kim had 2.6m of blue fabric and 4.54m of yellow fabric.

How much fabric did Kim have altogether?

$$\begin{array}{r} 2.6 \\ +4.54 \\ \hline 7.14 \end{array}$$

Kim had 7.14m of fabric.

**Teacher Information****Level 1**

Student was not able to complete #1 independently.

**Level 2**

Student answered #1 correctly.

**Level 3**

Student answered #1 and #2 correctly.

**Level 4**

Student answered # 1, #2 and #3 correctly.

**Part A: Number Strand**

**N4.8b** Demonstrate an understanding of subtraction of decimals limited to hundredths (concretely, pictorially, and symbolically) by using compatible numbers, using mental math strategies, and solving problems.

<b>Beginning (1)</b>	<b>Approaching (2)</b>	<b>Proficiency (3)</b>	<b>Mastery (4)</b>
Student needs assistance subtracting decimals to 100ths.	Student can subtract decimals limited to 100ths that do not require regrouping.	Student is able to subtract decimals limited to 100ths using a regrouping strategy.	Student is able to solve situational subtraction story problems.

1. Solve.

$$9.83 - 7.21$$

$$\begin{array}{r} 9.83 \\ -7.21 \\ \hline 2.62 \end{array}$$

2. Solve.

$$8.8 - 2.72$$

$$\begin{array}{r} 8.8 \\ -2.72 \\ \hline 6.08 \end{array}$$

3. How much mass did the puppy gained? Kelly adopted a puppy from the PA SPCA. Its mass was 4.7 kg. At the 1<sup>st</sup> visit to the vet, the puppy had a mass of 5.4 kg.



$$\begin{array}{r} 5.4 \\ -4.7 \\ \hline 0.7 \end{array}$$

La difference de la masse  
du 0.7 kg.

**Teacher Information****Level 1**

Student was not able to complete #1 independently.

**Level 2**

Student answered #1 correctly.

**Level 3**

Student answered #1 and #2 correctly.

**Level 4**

Student answered # 1, #2 and #3 correctly.

**Part A: Number Strand**

**N4.8c** Demonstrate an understanding of addition and subtraction of decimals limited to hundredths (concretely, pictorially, and symbolically) by estimating sums and differences.

<b>Beginning (1)</b>	<b>Approaching (2)</b>	<b>Proficiency (3)</b>	<b>Mastery (4)</b>
Student needs assistance to round decimals to 100ths.	Student is able to estimate sums or differences.	Student is able to use a personal strategy to estimate an addition or subtraction problem.	Student is able to estimate an addition or subtraction problem and justify their reasoning.

1. Will the sum be greater than or less than 3?

$$2.1 + 0.4$$

Less than

2. a) Estimate the sum

$$4.16 + 3.92$$

$$4 + 4 = 8$$

- b) Estimate the difference.

$$8.9 - 6.2$$

$$9 - 6 = 3$$

3. a) Use your estimation skills, does Tyson have enough money to buy the muffins? Tyson has \$7.00. Tyson wants to buy some muffins. The price is \$5.95 plus tax. The tax is \$0.36.



Yes

- b) How do you know?

\$5.95 is close to \$6.00 and 36 cents is less than \$1.00.

**Teacher Information****Level 1**

Student was not able to complete #1 independently.

**Level 2**

Student answered #1 correctly.

**Level 3**

Student answered #1 and #2 correctly.

**Level 4**

Student answered # 1, #2 and #3 correctly.

**Part B: Pattern & Relations Strand**

**P4.1** Demonstrate an understanding of patterns and relations by identifying and describing patterns and relations in a chart, table or diagram, reproducing patterns and relations in a chart, table, or diagram using manipulatives, creating charts, tables, or diagrams to represent patterns and relations, and solving problems involving patterns and relations.

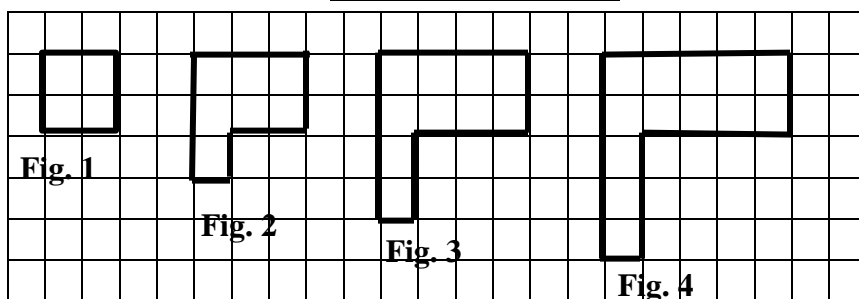
<b>Beginning (1)</b>	<b>Approaching (2)</b>	<b>Proficiency (3)</b>	<b>Mastery (4)</b>
Student needs assistance to extend a pattern and identify the pattern rule.	Student is able to describe a pattern or relation in a chart, table or diagram.	Student is able to create a chart, table or diagram to represent a pattern and state the pattern rule.	Student is able to solve a problem involving patterns and relations.

1. Describe the pattern rule in the chart.

Start at 3 and add 4 each time.

Figure	Counters
1	3
2	7
3	11
4	15

2.



a) Create a table to represent the area of these figures.

1	4
2	7
3	10
4	13

b) State the pattern rule.

Start at 4 and add 3 each time.

c) How many blocks would be the 6<sup>th</sup> figure?

19

**Teacher Information****Level 1**

Student was not able to complete #1 independently.

**Level 2**

Student answered #1 correctly.

**Level 3**

Student answered #1 and #2a) and #2b) correctly.

**Level 4**

Student answered # 1 and #2 correctly.



**Part B: Pattern & Relations Strand**

**P4.2** Demonstrate an understanding of equations involving symbols to represent an unknown value by writing an equation to represent a problem and solving one step equations. (addition, subtraction, multiplication, division).

<b>Beginning (1)</b>	<b>Approaching (2)</b>	<b>Proficiency (3)</b>	<b>Mastery (4)</b>
Student needs assistance to solve one step addition/subtraction equations.	Student is able to solve one step addition/subtraction equations.	Student is able to solve one step equations.	Student is able to create and solve one step equations related to situational questions.

1. Solve.

$$\triangle + 16 = 37$$

$$\begin{array}{r} 36 \\ -16 \\ \hline 21 \end{array}$$

2. Solve

$$\triangle \div 8 = 3$$

$$8 \times 3 = 24$$

3. How many muffin pans will Tina need? She needs to bake 48 muffins for the bake sale. She only has muffin pans that hold 6 muffins. Write 2 equations (one multiplication and one division) to represent the story.

$$\begin{array}{l} 48 \div 6 = \square \\ 48 = 6 \times \square \\ \text{Tina needs 8 muffin pans.} \end{array}$$

**Teacher Information****Level 1**

Student was not able to complete #1 independently.

**Level 2**

Student answered #1 correctly.

**Level 3**

Student answered #1 and #2) correctly.

**Level 4**

Student answered # 1 and #2, and #3 correctly.

**Part C: Shape & Space Strand****SS4.1a** Demonstrate an understanding of time by reading and recording time using digital and analog clocks (including 24 hour clocks).

<b>Beginning (1)</b>	<b>Approaching (2)</b>	<b>Proficiency (3)</b>	<b>Mastery (4)</b>
Student needs assistance to state the number of hours in a day.	Student is able to read and record time using a digital clock.	Student is able to read and record time using an analog clock.	Student is able to use an analog clock to give digital and 24 hour time.

1. The digital time is 2:46.

a) What is the hour?

2

b) What are the minutes?

46

2. Write the time that this clock represents?



2:36

3. Write this time in digital time and 24 hour time.



Digital Time:

8:15

24 Hour Time:

8:15  
20:15**Teacher Information****Level 1**

Student was not able to complete #1 independently.

**Level 2**

Student answered #1 correctly.

**Level 3**

Student answered #1 and #2) correctly.

**Level 4**

Student answered # 1 and #2, and #3 correctly.



**Part C: Shape & Space Strand****SS4.2** Demonstrate an understanding of area of regular and irregular 2-D shapes by:

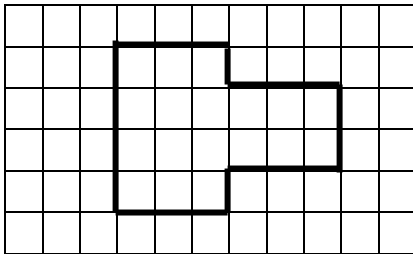
- recognizing that area is measured in square units
- selecting and justifying referents for the units  $\text{cm}^2$  or  $\text{m}^2$
- estimating area by using referents for  $\text{cm}^2$  or  $\text{m}^2$
- determining and recording area ( $\text{cm}^2$  or  $\text{m}^2$ )
- constructing different rectangles for a given area ( $\text{cm}^2$  or  $\text{m}^2$ ) in order to demonstrate that many different rectangles may have the same area.

Beginning (1)	Approaching (2)	Proficiency (3)	Mastery (4)
Student needs assistance in determining a referent or calculating area.	Student is able to select an appropriate referent in $\text{cm}^2$ .	Student can determine and record the area of 2-D shapes.	Student is able to construct/draw different rectangles for a given area.

1. State a referent for  $\text{cm}^2$ .

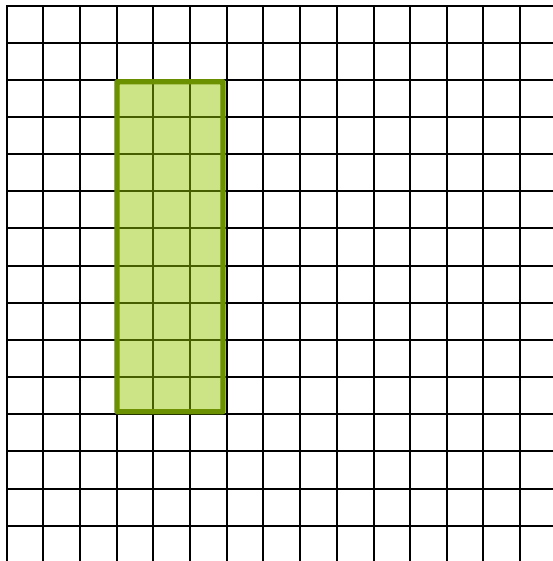
Tooth, unit blocks

2. Find the area of the shape.



$18\text{cm}^2$

3. The area of a rectangular garden is  $27\text{m}^2$ . The garden is 9m long.  
a) Draw a model of the garden on grid paper.  $1\text{m}^2 = 1$  square

**Teacher Information****Level 1**

Student was not able to complete #1 independently.

**Level 2**

Student answered #1 correctly.

**Level 3**

Student answered #1 and #2 correctly.

**Level 4**

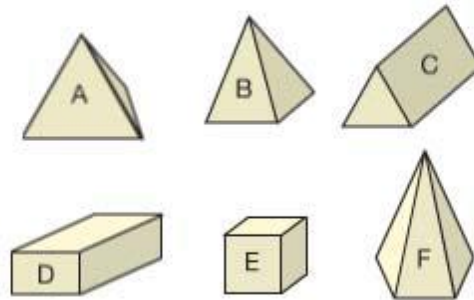
Student answered # 1 and #2, and #3 correctly.

**Part C: Shape & Space Strand****SS 4.3** Demonstrate an understanding of rectangular and triangular prisms by:

- identifying common attributes
- comparing
- constructing models.

<b>Beginning (1)</b>	<b>Approaching (2)</b>	<b>Proficiency (3)</b>	<b>Mastery (4)</b>
Students need help identifying the rectangular and triangular prism.	Student can identify a rectangular and triangular prism.	Student is able to compare prisms using words like face, edge, etc.	Student is able to construct nets for rectangular or triangular prisms.

1. Use the pictures below:



a) Identify a triangular prism.

c

b) Identify a rectangular prism.

d

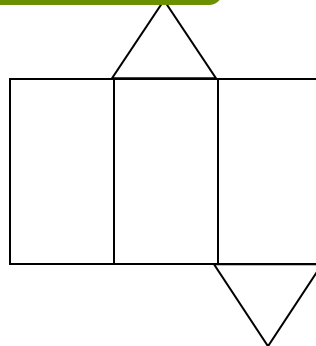
c) Write one similarity between a triangular and a rectangular prism.

Both have faces, vertices, and edges

d) Write one difference between a triangular and a rectangular prism.

They have different faces (triangle, and

2. Draw the net for a triangular prism.

**Teacher Information****Level 1**

Student was not able to complete #1 independently.

**Level 2**

Student answered #1a) and #1b) correctly.

**Level 3**

Student answered #1a), #1b), #1c), and #1d) correctly.

**Level 4**

Student answered # 1 and #2 correctly.

**Part C: Shape & Space Strand****SS4.4** Demonstrate an understanding of line symmetry by:

- identifying symmetrical 2-D shapes
- creating symmetrical 2-D shapes
- drawing one or more lines of symmetry in a 2-D shape.

<b>Beginning (1)</b>	<b>Approaching (2)</b>	<b>Proficiency (3)</b>	<b>Mastery (4)</b>
Students need assistance in identifying a symmetrical shape.	Student is able to identify a symmetrical shape.	Student is able to create a shape that is symmetrical.	Student is able to identify multiple lines of symmetry.

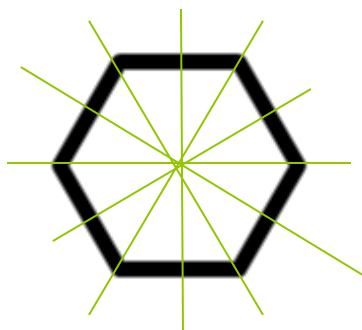
1. Circle the shape that has symmetry.



2. Draw a shape that is symmetrical, include a line of symmetry.

Answers will vary

3. Draw the lines of symmetry in the following shape.

**Teacher Information****Level 1**

Student was not able to complete #1 independently.

**Level 2**

Student answered #1 correctly.

**Level 3**

Student answered #1 and #2 correctly.

**Level 4**

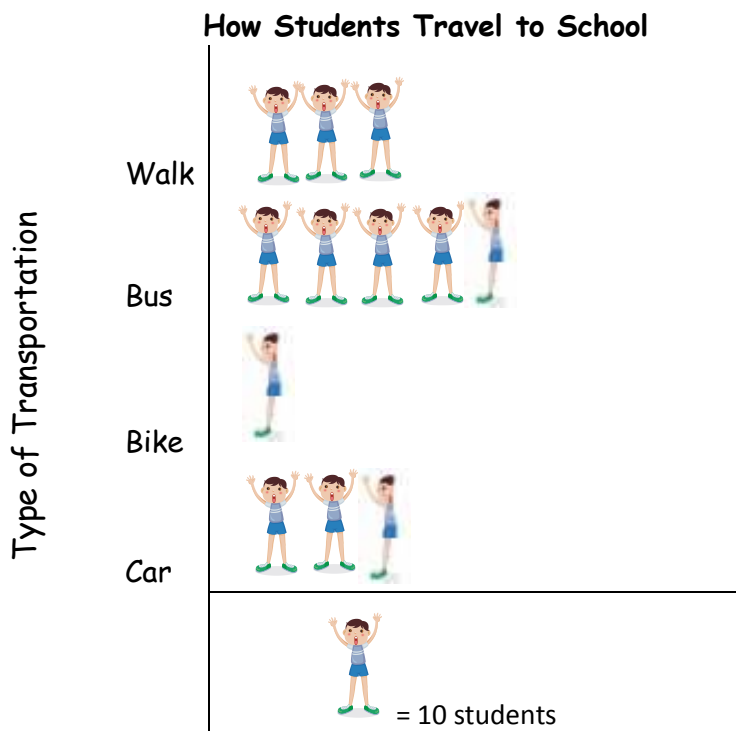
Student answered # 1, #2, and #3 correctly.

**Part D: Statistics & Probability Strand****SP4.1** Demonstrate an understanding of many-to-one correspondence by:

- comparing correspondences on graphs
- justifying the use of many-to-one correspondences
- interpreting data shown using a many-to-one correspondence
- creating bar graphs and pictographs using many-to-one correspondence.

<b>Beginning (1)</b>	<b>Approaching (2)</b>	<b>Proficiency (3)</b>	<b>Mastery (4)</b>
Student needs assistance understanding many to one correspondence.	Student is able to identify whether a graph is many to one or one-to-one.	Student is able to organize and represent data on a bar graph or pictograph.	Student is able to analyze interpretations of graphs using many to one correspondence.

1. Is this a many-to-one or one-to-one graph?



Many to one

**Teacher Information****Level 1**

Student was not able to complete #1 independently.

**Level 2**

Student answered #1 correctly.

**Level 3**

Student answered #1 and #2a) correctly.

**Level 4**

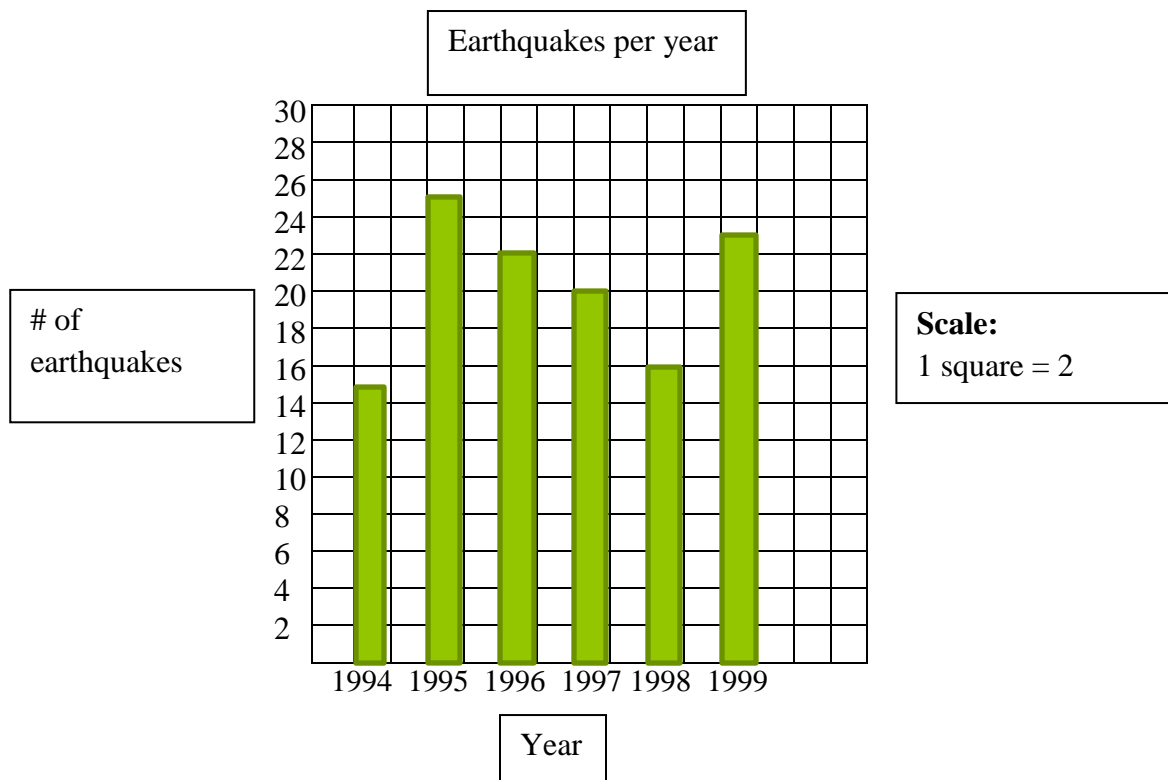
Student answered # 1 and #2 correctly.

Name: \_\_\_\_\_

2. This table shows the number of earthquakes per year, from 1994 to 1999.

Year	Number of Earthquakes
1994	15
1995	25
1996	22
1997	20
1998	16
1999	23

- a) Draw a bar graph to show this data.



- b) Write a question you could answer by looking at the graph. Answer the question

Which year had the most earthquakes? 1995  
Which year had the fewest earthquakes? 1994  
Answers will vary.

Teacher Information