Process Standards Rubric

Algebra

Exercise — columns: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, Drill Sheet 1, Drill Sheet 2, Review A, Review B, Review C

SAMPLE

Expectations
Instructional programs from pre-kindergarten through grade 12 should enable all students to:

GOAL 1: Problem Solving
- build new mathematical knowledge through problem solving;
- solve problems that arise in mathematics and in other contexts;
- apply and adapt a variety of appropriate strategies to solve problems;
- monitor and reflect on the process of mathematical problem solving.

GOAL 2: Reasoning & Proof
- recognize reasoning and proof as fundamental aspects of mathematics;
- make and investigate mathematical conjectures;
- develop and evaluate mathematical arguments and proofs;
- select and use various types of reasoning and methods of proof.

GOAL 3: Communication
- organize and consolidate their mathematical thinking through communication;
- communicate their mathematical thinking coherently and clearly to peers, teachers, and others;
- analyze and evaluate the mathematical thinking and strategies of others;
- use the language of mathematics to express mathematical ideas precisely.

GOAL 4: Connections
- recognize and use connections among mathematical ideas;
- understand how mathematical ideas interconnect and build on one another to produce a coherent whole;
- recognize and apply mathematics in contexts outside of mathematics.

GOAL 5: Representation
- create and use representations to organize, record, and communicate mathematical ideas;
- select, apply, and translate among mathematical representations to solve problems;
- use representations to model and interpret physical, social, and mathematical phenomena.

Task Sheet 14

14a) Look at this pattern.

How would you show this pattern using letters?

i) ABB   ii) ABA   iii) AAB   iv) BAB

b) **Jacob's mother has been keeping track of his weight for the past few years. Here is the chart she made to show his yearly weight gain.**

Ages	Weight gain
0-1 year	9 pounds
1-2 years	5 pounds
2-3 years	4 pounds
3-4 years	4 pounds

If Jacob weighed 8 pounds when he was born, what was his total weight by the time he was four?

Show Your Work

Answer: _____

SAMPLE

Review C

a) The two number sentences below belong to a *fact family*.

$5 + 4 = 9$ and $9 - 4 = 5$

Which of the following pairs of number sentences belong to the same fact family as the one above?

i) $5 + 9 = 14$ and $14 - 9 = 5$ ii) $4 + 5 = 9$ and $9 - 5 = 4$

iii) $5 - 4 = 1$ and $1 + 4 = 5$ iv) $9 - 0 = 0$ and $9 - 9 = 0$

b) Look at this pattern.

How would you show this pattern using letters?

i) AAB   ii) ABA   iii) ABB   iv) BAB

c) Jack has 28 baseball cards. What is one way of putting these cards into equal groups?

i) 4 groups of 7   ii) 5 groups of 6

iii) 3 groups of 8   iv) 9 groups of 4

d) Graph the figure below on the accompanying number line.

$x = -6$

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

a) The first four figures of a pattern are shown below.

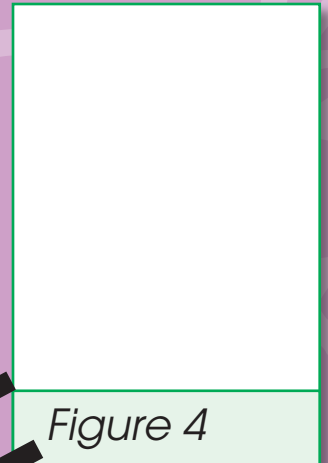|			
Figure 1	*Figure 2*	*Figure 3*	*Figure 4*

Now complete the bar graph below to show the number of _____ in each figure.

SAMPLE