Process Standards Rubric

Number and Operations

SAMPLE

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

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 7

7a) Jordan plays in his town's mixed soccer league. The ratio of boys to girls in the entire league is 21:14. What percent of the players are girls?

i) 25%   ii) 50%   iii) 40%   iv) 20%

b) On Jordan's own team, *The Hornets*, the ratio of boys to girls is 4:2. If there are 15 players on the team, how many are boys?

Answer = _____

c) Jesslyn has quite a sports card collection. When her cousins visited, she gave them ¼ of her collection for 5 valuable rookie cards. Jesslyn now has 65 cards. How many cards did she have before her cousins' visit?

Show your Work

SAMPLE

Answer: _____

d) How many phones and planes are needed for the next section of this pattern?

(✈ ✈ ((✈ ✈ ✈

i) 3 phones, 2 planes   ii) 4 phones, 5 planes

iii) 2 phones, 3 planes   iv) 3 phones, 4 planes

e) Angie is going to the hardware store to buy some garden tools. While there, she buys a rake for $12.35, a shovel for $16.75, and a hoe for $9.89. How much was her bill?

Answer = _____

Drill Sheet 2

2a) **Which of the following is not a pattern in which a constant is added or subtracted?**

    i)   50, 45, 40, 35, 30
    ii)   15, 17, 19, 21, 23
    iii) 6, 10, 14, 18, 22
    iv) 42, 40, 38, 26, 34

b) i) 989 099 + 1 = _____   ii) 23 456 + 100 = _____

    iii) 234.3 + 0.01 = _____

c) i) 5^2 = _____   ii) 12^2 = _____   iii) 3^3 = _____   iv) 15^3 = _____   v) 28^3 = _____

d) **Divisor = 7, Quotient = 40, Remainder = 2. What is the dividend?**

    i) 282   ii) 287   iii) 28   iv) 28

e) **What answer will have a remainder?**

    i) 649 / 8   ii) 470 / 7   iii) 242 / 2   iv) 663 / 3

f) **The population of Mexico is closest to the following number:**

    i) 11 000   ii) 11 000 000   iii) 110 000 000   iv) 11 000 000 000

g) **What is the value of this expression** **-1 + 23/100**

    i) – 77/100   ii) – 23/100   iii) - 123/100   iv) - 23/10

h) **What is the missing number in the following pattern below?**

    215, 208, 201, ___, 187

    Answer = _____

Rounding, Ordering, Patterning, Fractions, Greater Than/Less Than

a) Round off the following numbers to the nearest hundredth.

i)   ii)   iii)

b) List the following integers in order from least to greatest.

c) What is the number 10 000 before:

d) By which number is the pattern decreasing?

_____ , _____ , _____

e) Reduce the following fractions to their simplest forms.

i)   ii)   iii)

f) Circle either < or > to indicate which number is larger in each of the following pairs.

i) $<$ $>$ ii) $<$ $>$ iii) $<$ $>$