

# Process Standards Rubric

## Number and Operations – Drill Sheets

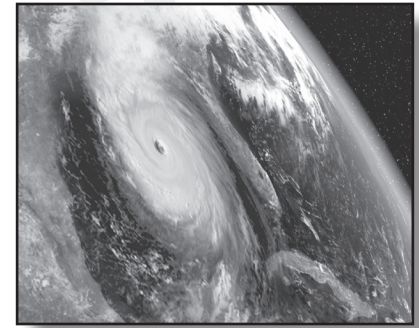
Expectations Instructional programs from pre-kindergarten through grade 12 should enable all students to:	Drills											
	Warm-up 1	Timed Drill 1	Warm-up 2	Timed Drill 2	Warm-up 3	Timed Drill 3	Warm-up 4	Timed Drill 4	Warm-up 5	Timed Drill 5	Warm-up 6	Timed Drill 6
GOAL 1: Problem Solving <ul style="list-style-type: none"> <li>build new mathematical knowledge through problem solving;</li> <li>solve problems that arise in mathematics and in other contexts;</li> <li>apply and adapt a variety of appropriate strategies to solve problems;</li> <li>monitor and reflect on the process of mathematical problem solving.</li> </ul>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
GOAL 2: Reasoning & Proof <ul style="list-style-type: none"> <li>recognize reasoning and proof as fundamental aspects of mathematics;</li> <li>make and investigate mathematical conjectures;</li> <li>develop and evaluate mathematical arguments and proofs;</li> <li>select and use various types of reasoning and methods of proof.</li> </ul>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
GOAL 3: Communication <ul style="list-style-type: none"> <li>organize and consolidate their mathematical thinking through communication;</li> <li>communicate their mathematical thinking coherently and clearly to peers, teachers, and others;</li> <li>analyze and evaluate the mathematical thinking and strategies of others;</li> <li>use the language of mathematics to express mathematical ideas precisely.</li> </ul>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
GOAL 4: Connections <ul style="list-style-type: none"> <li>recognize and use connections among mathematical ideas;</li> <li>understand how mathematical ideas interconnect and build on one another to produce a coherent whole;</li> <li>recognize and apply mathematics in contexts outside of mathematics.</li> </ul>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
GOAL 5: Representation <ul style="list-style-type: none"> <li>create and use representations to organize, record, and communicate mathematical ideas;</li> <li>select, apply, and translate among mathematical representations to solve problems;</li> <li>use representations to model and interpret physical, social, and mathematical phenomena.</li> </ul>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Warm-up 1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Timed Drill 1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Warm-up 2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Timed Drill 2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Warm-up 3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Timed Drill 3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Warm-up 4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Timed Drill 4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Warm-up 5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Timed Drill 5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Warm-up 6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Timed Drill 6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Timed Drill 7	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Timed Drill 8	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Warm-up 9	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Timed Drill 9	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Warm-up 10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Timed Drill 10	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Timed Drill 11	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Review A	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Review B	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Review C	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓



16a) What is the first step in the order of operations for the following? Ex:  $3^2 + 2 - 1 = 3^2$

i)  $12 + 14 \div 2 - 7 \times 8$  \_\_\_\_\_

ii)  $16 + 14 - 3(2 \times 6) \div 4$  \_\_\_\_\_



b) If the weather report says that there is a **60%** chance of rain, what fraction represents this amount? \_\_\_\_\_

c) Write the improper fraction equivalent for each mixed number

i)  $7 \frac{1}{3} =$

ii)  $12 \frac{3}{4} =$

iii)  $1 \frac{6}{7} =$

d) Write greater than (>), less than (<), or equal to (=) in the box.

i)  $7041.22$    $7041.220$

ii)  $23501.0023$    $23051.0032$

e) Solve the following

i)  $\frac{2}{3} \div \frac{3}{4} =$

ii)  $0.42 \times 0.78 =$

iii)  $0.032 \times 10^3 =$

iv)  $\frac{5}{6} \times \frac{8}{10} =$

v)  $0.9832 \div 0.05 =$

vi)  $\frac{3}{4} \div \frac{1}{2} =$

vii)  $12(2 + 12) - 10^2 =$

viii)  $12 + 10 - 5 \times 3 + (6 \times 13) =$

ix)  $(2 + 12 \div 4)^2 =$

x)  $\frac{1}{8} \times \frac{1}{2} \times \frac{2}{3} =$

f) For each pair of numbers below, circle the one that is **LARGER**.

i) 100 or  $10^3$

ii)  $\frac{2}{3}$  or 0.87

iii) 60% or  $\frac{4}{5}$

NAME: \_\_\_\_\_



# Review B

a) What is the number 10 000 before the following:

i)	80 252	
ii)	952 873.6	

b) Multiply the following.

i)  $5902 \times 245$

ii)  $\$53.90 \times 376$

iii)  $765.1 \times 23.5$

iv)  $53.01 \times 3.7$

c) Calculate the mean, median and mode for the following list of numbers.

390, 440, 280, 782, 440, 336, 316

Mean	
Median	
Mode	

d) Record the following number in the accompanying place value chart. 29 064.013

Ten Thousands	Thousands	Hundreds	Tens	Ones	Tenths	Hundredths	Thousandths

e) Solve the following.

i)  $1/3 \times 4/5 =$

ii)  $7/8 \div 1/4 =$

iii)  $7 \times 1/5 \times 2/7 =$

iv)  $2/3 \div 1/8 \times 1/2 =$

v)  $6.2 \times 10^2 =$

vi)  $0.002 \times 10^3 =$

# Divisor, Dividend, Remainder

a) Write the equivalent fractions of:

i) \_\_\_\_\_  $\rightarrow$  \_\_\_\_\_    ii) \_\_\_\_\_  $\rightarrow$  \_\_\_\_\_    iii) \_\_\_\_\_  $\rightarrow$  \_\_\_\_\_

b) Calculate the mean, the median and the mode for the following:

_____, _____, _____, _____, _____, _____, _____	Mean =	_____
	Median =	_____
	Mode =	_____

c) Show each fraction as a percent.

i) \_\_\_\_\_ = \_\_\_\_\_ %    ii) \_\_\_\_\_ = \_\_\_\_\_ %    iii) \_\_\_\_\_ = \_\_\_\_\_ %

d) Divisor = \_\_\_\_\_, Dividend \_\_\_\_\_, Remainder = \_\_\_\_\_.

What is the quotient? \_\_\_\_\_

e) What is the LCM of the following numbers. \_\_\_\_\_, \_\_\_\_\_

f) Write the following number in expanded form.

= \_\_\_\_\_