Jakarta International School
6th Grade

Name: _____

Date: _____

Practice Test - Formative.
DECIMALS - Blue

Score: $\frac{\quad}{35}$ points for Q
marked 62 in total

1) Unit Conversions (1pt each)

a. 0.37 km = _____ m

b. 35 mg = _____ g

c. 25 g = _____ kg

d. 17.3 L = _____ mL

e. 0.105 m= _____cm

2) Select the most reasonable answers (1pt each)

Volume of a bathtub	**a.** 25L	**b.** 250 L	**c.** 2,500 ml
Mass of a sixth grader	**a.** 400 g	**b.** 40 g	**c.** 40 kg
Length of a basketball court	**a.** 270 cm	**b.** 27 m	**c.** 2.7 m
Height of a big dog	**a.** 90 mm	**b.** 9 m	**c.** 90 cm

3) Translating words to decimals (2pts each)
Write the Decimal using numbers and then solve. Then write the answer in words

a. Divide 70 and 6 thousandth by four tenths.

b. Add 18 thousandth and four thousand, then square the result.

4) Distributive Property

a. Use the distributive property to rewrite the following expressions and then simplify them. (2pts each)

Expression	Rewrite	Simplify
⌘ $3\bullet 5+27\bullet 5$		
407(99)		
⌘8(98)		

b. Factor a 3 or 6 out of each numerical expression. (1pt each)

⌘i) 84 + 96 ii) 126 + 378

5) Scientific Notation

a. Write these numbers in scientific notation: (1pt each)

Standard form	Scientific notation
⌘ 1985	
⌘47 000	
34.56	
82 300 000	

b. Write these numbers in standard form: (1pt each)

Scientific notation	Standard form
2.4×10^3	
6.2245×10^9	
⌘3.28×10^5	
⌘6×10^6	

c. Solve and express the result in scientific notation: (1pt each)

⌘i) $(3\times10^{4})\,(3\times10^{4})$

ii) $(5\times10^{6})\,(3\times10^{4})$

⌘iii) $\dfrac{(9\times10^{7})}{(2\times10^{3})}$

iv) $\dfrac{(5.0\times10^{10})}{(2.0\times10^{7})}$

d. Rank the following three numbers written in scientific notation from smallest to largest. (1pt)

Smallest = 3

6.78×10^{-4}	
9.3×10^{-5}	
8.2×10^{-4}	

⌘**e**. Rank the following values in order from largest value to smallest value. (2pts)

Smallest = 5 Largest = 1

i) 

ii) 0.0085

iii) 8.5×10^{-2}

iv) eighty hundredths

v) 0.08 + 0.008 + 0.0005

Value	i)	ii)	iii)	iv)	v)
Rank					

6) Estimate first and then solve. Show your work. (2pts each)

a. (76.4)(0.12)

⌘**b.** 6.066 ÷ 1.2

7) Use the information in the chart to answer the questions. (1pt)
Show all your steps.

Lion and the Cage	Cage without the Lion	Tiger and the Cage	Cage without the Tiger
241.6 kg	67.48 kg	254.5 kg	63.2 kg

a. Which weighs more, the lion or the tiger?

Mixed Word Problems with Decimals (3pts each)

8) The total cost of 5 notebooks, 2 calculators and 3 binders is $78.45. If each notebook costs $1.70 and each binder costs $5.99, find the cost of each calculator.

9) Seven friends go to a restaurant for dinner. The bill comes to $249.55. Two people have only 30 dollars each, so the rest of the group shares the remainder of the bill equally. How much do the five others pay? Round off the answer sensibly. Explain your answer.

10) What is a better buy, Brand A that is 12cm wide roll of aluminum foil that is 21 meters long and sells for Rp69, 000, or Brand B that is 16cm wide roll of aluminum foil that is 18 meters long that sells for Rp75, 000?

11) 3.2 tonnes of topsoil is to be spread over a new section of the field. The section is 32 m by 27.6 m, how many kilograms of topsoil should be spread on each square metre?

12) A box of 100 biscuits originally weighs 1.325 kg. 55 biscuits are eaten and the remaining biscuits and box now weigh 637.6 grams. How much does the box weigh?

13) A driveway is to be paved. It is 26m long and 5m wide. The cost of the paving stones is \$23.50 per m^2 and the contractors charge \$14 per m^2 for laying them. What is the total cost of paving the driveway?

14) On November 29 2010, gold cost U.S\$2179.72 per gram.

a. How much would 0.375 of a gram cost?

b. You have U.S\$185.50. How many grams of gold can you buy?
(round to nearest hundredth)

c. A 'kilo bar' of gold is 1000 grams in mass, and is used extensively for trading and investment in the gold market. What is the price of a kilo bar?