



Rounding and Estimating

(1pt each)

1) Round 7,358 to the nearest:

a. Hundred: _____

b. Thousand: _____

2) Over the weekend **Roll on Inn** restaurant earned \$8954.89, while **Cosy Cooking Café** earned \$2899.15. Use rounding to calculate approximately how much more Roll On Inn earned. (1pt)

Order of Operations

3) Find the value of each expression using order of operations. (2pts each)

a. $36 \div 3^2 \times 2$

b. $\frac{4(12 + 3)}{4 + 5}$

4) Insert Parentheses to make statement true. (1pt each)

a. $22 - 4 \div 2 = 9$

b. $5 \times 5 + 5 - 5 = 45$

5) Rica and her grandmother took all her friends to a café for a birthday treat. Before Rica's grandmother paid the bill, Rica worked out the total cost of the food and drinks. Altogether, the birthday group bought 8 smoothies (Rp28, 000 each), 5 fresh juice drinks (Rp22, 000 each) and 12 cupcakes (Rp8000 each).

What was the total of the bill? (2pts)

6) One afternoon, Alvin was shoveling snow to clear the neighborhood driveways. For the first hour he worked, he earned \$8.00. After that he earned \$5.00 per 30 minutes.

The afternoon's work took $4\frac{1}{2}$ hours to complete. How much did he earn? (2pts)

Powers and Exponents

7) Tell which power has a greater value. Explain your decision by showing working. (2pts)

a. $6^2 \div 2^2$ or $2^6 \div 2^2$

8) Complete the table (1pt)

Numbers written with powers	2^2	2^3	2^4	2^5	2^6
Value of the number	4				

9) Charles received a 'chain letter' in the mail. The instructions are to forward the kind wishes to 10 other people. Those 10 people will forward the message to 10 people who will then forward the message to 10 additional people.

How many people received the message? (1pt) (Remember to count yourself!)

Variable and Expressions

10) Evaluate the following expressions by substituting the values below. (2pts each)

$$a = 4, b = 6 \text{ and } c = 11:$$

a. $2c + 3a - b$

b. $ab + bc$

c. $(b + c) - (a + b)$

d. $\frac{a + b}{b - a}$

Perimeter and area

11) Mr. Schwartz has been training for a road race in Singapore. On Sundays he likes to run 18 kilometers on the school track. How many laps of the track does he run to cover 18km? (hint: the distance around the track is 400m)

Show working to support your answer. (2pts)

Solving Equations using mental math

12) Use mental math to solve the following equations and show how you checked your answer. (2pts each)

a. $\frac{56}{x} = 2$

b. $13 + x = 40$

c. $q + 7 = 19$

d. $15c = 90$

13) Freda is saving money for a school trip. So far, she has saved d dollars. When she has saved another \$20 she will have reached her target of \$100.

Use this information to write an equation combining d , 20 and 100. (2pts)

4 step problem solving

Use the **four step problem solving plan** to solve the following problems.

Use lined paper if you wish. (4pts each)

14) Sarah is cooking macaroni cheese in her Microwave oven. The directions on the box give the cooking time per serving:

Servings	2	4	6
Minutes	6	8	10

If Sarah wants to cook 9 servings, for how many minutes should she set her microwave?

15) A ladder has 7 steps. The bottom of each step is 30cm above the bottom of the previous step. The distance from the bottom of the ladder to the bottom of the first step is 6cm. The distance from the last step to the top of the ladder is 10cm. How long is the ladder?