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## Mathematics - Grade 5

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**TOPIC:** Number Sense & Numeration

**FOCUS OF ACTIVITIES:**

Activity 1 is a rich learning task where the students use multiplication skills to calculate and generate numbers. Activity 2 has the students using specific numbers to create equations. As they manipulate the numbers and place the various symbols appropriately, students are practising mathematics operations and using reasoning, problem solving and thinking skills.

**INSTRUCTIONS:**

- Children should be encouraged to complete the questions using an investigative approach. An investigative approach indicates that there is usually more than one way to successfully complete the problem, and encourages the children to explore.
- Make available scrap paper for the children to work on. The use of calculators would be helpful when working with larger numbers however a calculator is not necessary.
- Encourage children to first predict the answers to the question before they begin to work.

**ACTIVITIES:**

1. Multiplication

Many products can be made using 1, 2, 3, 4

For example:  $2 \times 134 = 268$   
 $1 \times 2 \times 3 \times 4 = 24$   
 $24 \times 13 = 312$

- (a) Find as many as you can.

- (b) Which is the greatest?
- (c) What is the greatest possible product using the digits:  
1, 2, 3, 4, 5, 6, 7, 8, 9?
2. Using the digits 1, 9, 9, 8 and order of operations, can you find equations to equal the following numbers. Here's a few to get you started!

<b>1 =</b>	<b>26 =</b>
<b>2 =</b>	<b>27 =</b> $1 + 9 + 9 + 8$
<b>3 =</b>	<b>28 =</b>
<b>4 =</b> $8 \div [1 + (9 \div 9)]$	<b>29 =</b>
<b>5 =</b>	<b>30 =</b>
<b>6 =</b>	<b>31 =</b>
<b>7 =</b>	<b>32 =</b>
<b>8 =</b>	<b>33 =</b>
<b>9 =</b> $9 - (9 - 8) + 1$	<b>34 =</b>
<b>10 =</b>	<b>35 =</b>
<b>11 =</b>	<b>36 =</b>
<b>12 =</b>	<b>37 =</b>
<b>13 =</b>	<b>38 =</b>
<b>14 =</b>	<b>39 =</b>
<b>15 =</b>	<b>40 =</b>
<b>16 =</b>	<b>41 =</b>
<b>17 =</b>	<b>42 =</b>
<b>18 =</b>	<b>43 =</b>
<b>19 =</b>	<b>44 =</b>
<b>20 =</b>	<b>45 =</b>
<b>21 =</b>	<b>46 =</b>
<b>22 =</b>	<b>47 =</b>
<b>23 =</b>	<b>48 =</b>
<b>24 =</b>	<b>49 =</b>
<b>25 =</b>	<b>50 =</b>

**ANSWERS:**

1. (a) The answers will vary.
  - (b) The answer will depend upon the numbers generated in (a). For example, the largest number is the correct answer.
  - (c) The answer will vary dependent upon the products generated by the student.
2. The answer should be an equation (see the example on the activity sheet). Equations can vary but must equal the digit from 1 - 50 that is indicated.

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## Mathematics - Grade 5

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**TOPIC:** Number Sense & Numeration

**FOCUS OF ACTIVITIES:** Compare and order whole numbers.  
Recall addition and multiplication facts.

**INSTRUCTIONS:**

While the use of a calculator is not essential, it will enable students to check their answers quickly.

**ACTIVITIES:**

- How many 4-digit odd numbers can you create using each of the digits 4, 5, 6 and 7 once only?
  - How do you know when you have found them all?
  - How many 4-digit even numbers can you create using each of the digits 4, 5, 6 and 7 once only?
- Jody mistakenly entered  $156 + 52$  in a calculator when she should have entered  $106 + 52$ . How can she correct this problem without using the clear key and starting all over again?
  - How many different ways can you find? Of all the ways you have found, which one do you prefer and why?
- What operation would you enter in the calculator to change 134 to 104?
  - Why did you select the operation you did?
- How could you find each product with a calculator if the "6" key is broken?
  - $7 \times 56$
  - $6 \times 46$
  - $6 \times 66$

In how many different ways can you do each of these?

- Maria says that you can use the 2, 3, - and + keys on a calculator to obtain all the numbers from 1 to 108? Do you agree? Why?

2.  $156 + 52 - 50$
3. Subtract (-) 30.
4. (a)  $7 \times (7 \times 8)$   
 (b)  $(3 \times 2) \times (2 \times 23)$   
 (c)  $(3 \times 2) \times (11 \times 3 \times 2)$
5. Yes, if I can also use the "=" key.
1. (a)  $12 \quad 4567 \quad 5467 \quad 6457 \quad 4657 \quad 5647 \quad 6457$   
 $12 \quad 4657 \quad 5647 \quad 6547 \quad 4765 \quad 6745 \quad 7465$
- (b) Using a systematic list.
- (c)  $12 \quad 5764 \quad 7654 \quad 6754 \quad 5746 \quad 4756 \quad 7456$   
 $12 \quad 5674 \quad 7564 \quad 6574 \quad 5476 \quad 4756 \quad 7546$

**ANSWERS:**