

**Grade 8 Mid-Point
Math Check-up
(Student Copy)**

Name: _____ Date: _____

Tell us what you thought! After each section,
circle a happy or sad face.
If the question was easy, circle the smile!
If the question was hard, circle the frown!



Easy



Hard

Part 1 - Basic Facts and Computation

For oral questions, state question, give a 3 second pause and state question again with a 3 second pause.

A. Oral Addition Facts

1. _____

2. _____

3. _____

4. _____

5. _____

B. Oral Subtraction Facts

1. _____

2. _____

3. _____

4. _____

5. _____

C. Oral Multiplication Facts

1. _____

2. _____

3. _____

4. _____

5. _____

D. Oral Division Facts

1. _____

2. _____

3. _____

4. _____

5. _____



E. Oral Squares and Square Root Facts

1. _____ 2. _____ 3. _____
4. _____ 5. _____ 6. _____



F. Computation: Addition

1)
$$\begin{array}{r} 675 \\ + 298 \\ \hline \end{array}$$

2) $254.12 + 132.9$

3) $[8 + (-2)]$

Subtraction

1) $631 - 141 =$

2) $313.14 - 2.4$

3) $[4 - (-2)]$

Multiplication

1) $184 \times 18 =$

2) $23.2 \times 18.5 =$

3) $1000 \times 3.48 =$

Division

1) $6276 \div 12 =$

2) $3 \div 1.65 =$

3) $624 \div 100 =$



G. Order of Operations

1) $6 + 8 \times 20 - 100 =$

2) $8 \times (4 - 1) \div 4 =$

3) $(24 - 11) \times 3^2 =$

4) $\frac{1}{2} + \frac{1}{4} \times \frac{2}{3}$



H. Fraction Operations - Please change all answers to mixed fractions where applicable.

1) $\frac{2}{7} + \frac{4}{7} =$

2) $\frac{2}{3} - \frac{1}{4} =$

3) $2\frac{2}{3} + 1\frac{1}{4} =$

4) $4 \times \frac{2}{7} =$

5) $\frac{8}{9} \div 4 =$

6) $\frac{2}{5} \times \frac{7}{2} =$



Part 2 - Number and Word Problems

A. Number Sense

1. Place the following in ascending order. (least to greatest) Explain how you arrived at your answer.

4, -3, 9, 2, -6, 0, -12

2. Place the following in descending order. (greatest to least) Explain how you arrived at your answer.

$\frac{1}{4}$, $\frac{1}{3}$, $\frac{5}{8}$, $\frac{2}{5}$

3. In the number *one hundred thirty-two thousand seven hundred forty-eight and six hundred twenty-four thousandth*, what digit lies in each of the following place values.

a) tens

b) hundredths

c) ten thousands

4. Please list all the factors of 32.
-

5. Please list the first 5 multiples of 20.
-



Problem Solving Strategies - Grade 8

Please use this list of problem solving strategies to help you answer the question...What strategy did you use?

- 1) Act it Out
- 2) Use a Model
- 3) Draw a Picture
- 4) Guess and Test
- 5) Look for a Pattern
- 6) Use an Open Sentence
- 7) Make a Chart, Table or Graph
- 8) Solve a Simpler Problem
- 9) Consider all Possibilities
- 10) Consider Extreme Cases
- 11) Make an Organized List
- 12) Work Backward
- 13) Use Logical Reasoning
- 14) Change Your Point of View
- 15) Other (explain)

B. Word Problems

Please show all your work. Show all calculations and thought processes. Do not erase your work. You may refer to the strategies chart above to determine which strategy you used for each problem.

1. Coop Electricians make \$25.00 per hour for the first 40 hours worked per week. They make two times the hourly rate for each hour they worked over 40 hours. One week, they worked 50 hours. How much would an electrician expect to make in that week?



What strategy did you use to solve the problem?

2. The temperature in Meadow Lake on March 13th was $+10^{\circ}\text{C}$ at 2:00 p.m. By 6:00 p.m. the temperature had dropped to -9°C . What was the overall drop in temperature over the 4-hour period?



What strategy did you use to solve the problem?

3. At a particular school there are 4 boys for every 5 girls in grade 8. If there is a total of 81 students in grade 8, how many of them are boys? How many are girls? How do you know your answers make sense?



What strategy did you use to solve the problem?

4. A recipe for 12 muffins calls for 1 egg, $\frac{1}{2}$ cup of milk, 2 cups of flour and $\frac{1}{3}$ cup of sugar. If you wanted to make 36 muffins, what would the new amounts be?



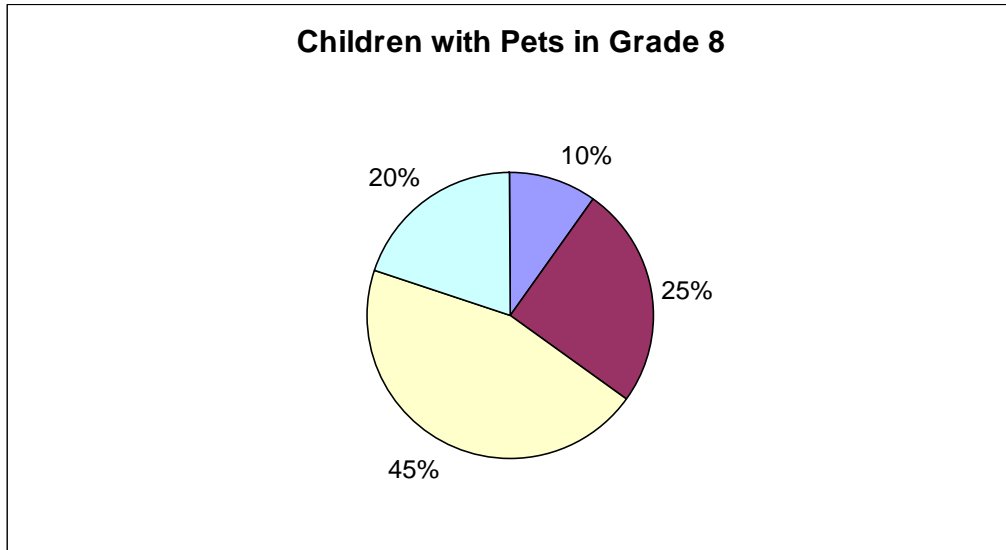
What strategy did you use to solve the problem?

5. John was landscaping his square backyard. He calculated that he needed exactly 81m^2 of grass sod to cover his entire lawn. He also wanted to buy a fence to go all the way around his backyard. How many meters of fencing must John buy?



What strategy did you use to solve the problem?

6. Two grade 8 classes were asked what pets they had at home. 40 students were asked and their results were put in a circle graph. The largest group had no pets at all, the second largest had dogs, the third largest had cats, and the smallest group had either a bird or a fish. Based on the graph below, how many of the students were in each group? Explain how you solved the problem.



What strategy did you use?

Name: _____

Part 3 - Interview

The following section is designed to be done one-on-one with the instructor. However, you may choose to apply these questions in an alternate appropriate manner. You will need a variety of manipulatives for this section. Suggested manipulatives are money, pattern blocks, fraction strips, fraction circles, and graph paper.

Record students' responses in the space provided.

1. How would you round 144.4347 to the nearest hundredth?

2. Using the manipulatives provided model the following fraction questions.

$$\frac{1}{2} + \frac{3}{4}$$

$$5 \times \frac{1}{2}$$

3. What strategy would you use to multiply 14×9 in your head?