Grade 9 Mid-Point
Math Check-up
(Student Copy)

Name: _____ Date: _____

Please note that the last page of this check-up will be done with your teacher in the form of an **interview**.

Tell us what you thought! After each question, circle the 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 (A through D), state question, give a 3 second pause and state question again with a 3 second pause.

A. Multiplication Facts

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____

B. Division Facts

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____

C. Fractions

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

D. Squares and Roots

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

E. Computations

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

2. $\begin{array}{r} 345 \\ -\ 298 \\ \hline \end{array}$

3. $\begin{array}{r} 23 \\ \times\ 75 \\ \hline \end{array}$

4. $23\overline{)456}$

5. $-8+13$

6. $13-(-9)$

7. $(-12)(-37)$

8. $\dfrac{3(37-25)}{-2+6}$

9. $12.3-2.8$

10. $1.05(1.50+2.75)$

11. $2.5\overline{)16}$

12. $(-1.2)^2-(3.1-2.9)$

F. Number Problems

1. Completely factor 48.

2. Write the following fractions from smallest to largest:

$$\frac{3}{4}, \frac{4}{5}, \frac{5}{8}, \frac{7}{10}$$

3. Estimate the value of $\sqrt{28}$ and explain how you came up with your estimate.

   Estimate-

   Explanation-

4. Which is larger: 15% of 70 or 12% of 90?

Problem Solving Strategies – Grade 9

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)

PART 2 – Problem Solving

1. The cost to go to Calaway Park is $19.95 for adults and $14.95 for children. How much would it cost for 2 adults and 3 children to go to Calaway Park ?

    a) Estimate –

    b) Calculate.


What strategy did you use to solve the problem ?

2. Matthew's bus leaves at 11:25 for Meadow Lake. He wants to be at the bus terminal 20 minutes early. The cab ride to the terminal is about 25 minutes. Matthew wants to spend 35 minutes shopping on his way to the terminal. When should he leave his hotel room ?

What strategy did you use to solve the problem ?

3. Jason had an average of 56% on his first 7 exams. What would he have to make on his eighth exam to obtain an average of 60% on 8 exams?

What strategy did you use to solve the problem ?

4. A rectangle has the dimensions 9 cm by 16 cm. What are the dimensions of a square with the same area ?


What strategy did you use to solve the problem ?

5. A bike is travelling at 35 km/h. A car is travelling at 80 km/h and begins 180 km behind the bike.

   How long will it take the car to catch up to the bike?


What strategy did you use to solve the problem?

PART 3 – Interview Questions

1. Simplify the following expressions involving fractions. Explain your strategies as you do them
   a. $\frac{4}{5}+\frac{2}{3}$
   b. $\frac{5}{7}-\frac{2}{9}$
   c. $\frac{11}{12}\cdot\frac{6}{7}$
   d. $\frac{7}{16}\div\frac{14}{15}$
   e. $\left(\frac{2}{3}-\frac{1}{4}\right)\div\left(\frac{3}{4}+\frac{1}{3}\right)$

2. Simplify the following expressions involving exponents. Explain your strategies as you do them
   a. 4^3+4^2
   b. 2^6-2^3
   c. $5^2\cdot5^5$
   d. $9^8\div9^6$
   e. $\frac{3^7\cdot3^2}{3^3}$

3. Ron got 75% on his Math exam. If the exam has 24 questions worth 1 mark each, how many questions did Barry get correct?

4. Terry made a mistake with her homework problem:

$$12\div4+6\cdot(-2)$$
$$=3+6\cdot(-2)$$
$$=9\cdot(-2)$$
$$=-18$$

   Explain the mistake that Terry made and how she could fix it.

Name: _____

Student Response Sheet to Interview Questions

Simplify expressions involving fractions and explain your strategies as you do them (1)

a. $\frac{4}{5}+\frac{2}{3}$ _____

b. $\frac{5}{7}-\frac{2}{9}$ _____

c. $\frac{11}{12}\cdot\frac{6}{7}$ _____

d. $\frac{7}{16}\div\frac{14}{15}$ _____

e. $\left(\frac{2}{3}-\frac{1}{4}\right)\div\left(\frac{3}{4}+\frac{1}{3}\right)$ _____

Name: _____

Student Response Sheet to Interview Questions

Simplify expressions involving exponents and explain your strategies as you do them (2)

a. $4^3 + 4^2$ _____

b. $2^6 - 2^3$ _____

c. $5^2 \cdot 5^5$ _____

d. $9^8 \div 9^6$ _____

e. $\frac{3^7 \cdot 3^2}{3^3}$ _____

Ron got 75% on this Math exam. If the exam has 24 questions worth 1 mark each, how many questions did he get right? (3)

_____

Terry made a mistake with her homework problem:

$12 \div 4 + 6 \cdot (-2)$

$= 3 + 6 \cdot (-2)$

$= 9 \cdot (-2)$

$= -18$

Explain the mistake and how she could fix it (4)