PART 1: QUESTIONS

Name:_____ **Age:**_____ **Id:**_____ **Course:**_____

Arithmetic - Exam 2 **Lesson: 6-8**

Instructions:

- Please begin by printing your Name, your Age, your Student Id , and your Course Name in the box above and in the box on the solution sheet.
- You have 90 minutes (class period) for this exam.
- You can not use any calculator, computer, cellphone, or other assistance device on this exam. However, you can set our flag to ask permission to consult your own one two-sided-sheet notes at any point during the exam (You can write concepts, formulas, properties, and procedures, but questions and their solutions from books or previous exams are not allowed in your notes).
- Each multiple-choice question is worth 5 points and each extra essay-question is worth from 0 to 5 points. (Even a simple related formula can worth some points).
- Set up your flag if you have a question.
- Relax and use strategies to improve your performance.

Exam Strategies to get the best performance:

- Spend 5 minutes reading your exam. Use this time to classify each Question in (E) Easy, (M) Medium, and (D) Difficult.
- Be confident by solving the easy questions first then the medium questions.
- Be sure to check each solution. In average, you only need 30 seconds to test it. (Use good sense).
- Don't waste too much time on a question even if you know how to solve it. Instead, skip the question and put a circle around the problem number to work on it later. In average, the easy and medium questions take up half of the exam time.
- Solving the all of the easy and medium question will already guarantee a minimum grade. Now, you are much more confident and motivated to solve the difficult or skipped questions.
- Be patient and try not to leave the exam early. Use the remaining time to double check your solutions.

1. Given:

I. A mixed number is a whole number and one proper fraction making up a number.

II. A mixed number is a whole and a decimal numbers combined.

III. A mixed number is a fraction a decimal numbers combined.

a) Only I is correct
b) Only II is correct
c) Only III is correct
d) I, II, and III are correct
e) None of the above.

2. The improper fraction $\frac{103}{13}$ is equivalent to:

a) $5\frac{12}{13}$ b) $6\frac{1}{13}$ c) $6\frac{3}{13}$ d) $6\frac{5}{13}$ e) $7\frac{12}{13}$

3. The mixed number $8\frac{3}{7}$ is equivalent to:

a) $\frac{58}{7}$ b) $\frac{59}{7}$ c) $\frac{60}{7}$ d) $\frac{61}{7}$ e) $\frac{62}{7}$

4. The addition of the following mixed numbers are:

$$3\frac{10}{11} + 2\frac{5}{11} = ?$$

a) $6\frac{2}{11}$ b) $6\frac{3}{11}$ c) $6\frac{4}{11}$ d) $6\frac{5}{11}$ e) $6\frac{6}{11}$

5. The addition of the mixed numbers are:

$$5\frac{2}{5} + 2\frac{3}{4} = ?$$

a) $8\frac{3}{20}$ b) $8\frac{7}{20}$ c) $8\frac{1}{5}$ d) $8\frac{2}{5}$ e) $9\frac{5}{2}$

6. The subtraction of the mixed numbers are:

$$5\frac{9}{10} - 2\frac{1}{2} = ?$$

a) $8\frac{3}{20}$ b) $8\frac{1}{5}$ c) $8\frac{2}{5}$ d) $8\frac{3}{5}$ e) $9\frac{5}{2}$

7. The subtraction of the mixed numbers are:

$$7\frac{1}{10} - 3\frac{2}{3} = ?$$

a) $3\frac{3}{20}$ b) $3\frac{7}{20}$ c) $3\frac{13}{30}$ d) $4\frac{2}{5}$ e) $4\frac{7}{30}$

8. Two sides of a triangle measure $5\frac{1}{4}$ cm. The third side measures $2\frac{1}{5}$ cm. What is the perimeter of the triangle?

a) $11\frac{5}{6}$ cm b) $12\frac{1}{6}$ cm c) $12\frac{5}{6}$ cm

d) $12\frac{7}{10}$ cm e) $12\frac{9}{10}$ cm

$$= 12 + \frac{14}{20} = 12\frac{7}{10}$$

9. Martha prepared 6 1/2 gallons of lemonade for her birthday. At the end of the party, they had 2 5/8 gallons left over. How many gallons of lemonade were consumed?

a) $2\frac{7}{8}$ gal b) $3\frac{7}{8}$ gal c) $4\frac{1}{6}$ gal

d) $4\frac{3}{10}$ gal e) $4\frac{7}{10}$ gal

10. The multiplication of the mixed numbers are:

$$1\frac{2}{3} \times 1\frac{5}{22} = ?$$

a) $1\frac{1}{6}$ b) $1\frac{1}{5}$ c) $1\frac{1}{4}$ d) $1\frac{1}{3}$ e) $1\frac{1}{2}$

11. Suzi went to hike on Saturday and on Sunday. She walked $1\frac{2}{3}$ miles on Saturday and 2 times more on Sunday. How many total miles did she walk on the weekend?

a) 5 mi b) 8 mi c) 11 mi d) 14 mi e) 17 mi

12. The division of the mixed numbers are:

$$2\frac{2}{15} \div 1\frac{3}{5} = ?$$

a) $1\frac{4}{5}$ b) $1\frac{3}{4}$ c) $1\frac{2}{3}$ d) $1\frac{1}{2}$ e) $1\frac{1}{3}$

13. Peter bought one box containing $12\frac{1}{4}$ kg of sugar to be used in his bakery. Given:

- Peter has used $\frac{1}{4}$ kg of sugar to make a cake.
- He has sold 7 cakes per day.
- The Bakery doesn't have space to stock more than one box of sugar.

How frequent has Peter bought sugar?

a) daily
b) weekly
c) monthly
d) quarterly
e) annually

14. Given:

I. $-9 \times (-3) = 27$
II. $-9 \times 3 = -27$
III. $9 \times (-3) = -27$
IV. $9 \times 3 = -27$

a) Only I is incorrect.
b) Only II is incorrect.
c) Only III is incorrect.
d) Only IV is incorrect.
e) None of the above.

15. Given:

I. $-9 \div (-3) = 3$
II. $-9 \div 3 = -3$
III. $9 \div (-3) = 3$
IV. $9 \div 3 = 3$

a) Only I is incorrect.
b) Only II is incorrect.
c) Only III is incorrect.
d) Only IV is incorrect.
e) None of the above.

16. Given:

I. $-9 - 3 = -12$
II. $9 - 3 = 6$
III. $-9 + 3 = 6$
IV. $9 + 3 = 12$

a) Only I is incorrect.
b) Only II is incorrect.
c) Only III is incorrect.
d) Only IV is incorrect.
e) None of the above.

17. Given:

I. The order of the operations are: Parentheses, Exponent, Multiplication, Division, Addition, and Subtraction.

II. Multiplication and Division have the same priority. If you have both Multiplication and Division, do the operations one by one in the order from left to right.

III. Addition and Subtraction have the same priority. If you have both Addition and Subtraction, do the operations one by one in the order from left to right.

a) Only I is correct.
b) Only II is correct.
c) I, II, and III are correct.
d) Only I and II are correct.
e) Only II and III are correct.

18. Solve the following expression:

$$(5 - 9) \div 2 \times (-3) = ?$$

a) 4 b) 5 c) 6 d) 7 e) None of the above.

19. Given:

$A = 1 - 11$
$B = -1 - 1$
$C = 1 - 10$
$D = 1 - 4$

Find $S = A \div B$ x $(C \div D)$.

a) $S = 3$ b) $S = 3$ c) $S = 3$ d) $S = 3$ e) $S = 3$

20. Given $X = \dfrac{\left(1\frac{1}{10} \div 1\frac{8}{25}\right)}{\left(0.5 - \frac{1}{3}\right)}$.

The value of x is:

a) 1 b) 2 c) 3 d) 4 e) 5

PART 2: SOLUTIONS

Consulting

Name:_____ **Age:**_____ **Id:**_____ **Course:**_____

Multiple-Choice Answers

Questions	A	B	C	D	E
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Let this section in blank

	Points	Max
Multiple Choice		100
Extra Points		25
Consulting		10
Age Points		25
Total Performance		160
Grade		A

Extra Questions

21. Find $1\frac{4}{5}+2\frac{1}{3}=?$

To add mixed numbers, you can use Horizontal or vertical methods to receive full credit (total = 5 points). However, if you use both methods, you receive an extra credit of 5 points (total = 10 points).

22. Find $3\frac{1}{3} - 1\frac{4}{5} = ?$

To subtract mixed numbers, you can use Horizontal or vertical methods to receive full credit (total = 5 points). However, if you use both methods, you receive an extra credit of 5 points (total = 10 points).

23. How many people can you serve $25\frac{1}{2}$ mini pizzas if each person has $1\frac{1}{3}$ of the pizza? Explain if some pizza will be left or not.

24. Solve $\dfrac{\frac{1}{5}+\frac{1}{5}+\frac{1}{5}+\frac{1}{5}+\frac{1}{5}}{\frac{1}{5}} = ?$

25. A car's tank has a capacity of 15 gallons. When the pointer indicates that the fuel occupies $\frac{3}{4}$ of the tank, how many gallons of gas are in it?