Math 8

Unit 2 Test
Multiplying/Dividing Integers

____ =
41

NO CALCULATORS ALLOWED FOR THIS TEST Name: _____

Part 1: Multiple Choice

Place the letter of best response in the space provided. [5 marks]

1. Which statement is true about division of integers? 1._____

A) If both signs are negative, the quotient will also be negative.
B) If the signs are different, the quotient will have the same sign as the first integer.
C) If both signs are different, the quotient will have the same sign as the last integer.
D) If the signs are different, the quotient will be negative

2. Sarah deposited $10 into her bank account each week for 4 weeks. Which integer represents the change in her bank account balance? 2._____

A) - 40
B) - 10
C) 10
D) 40

(10 x 4) = 40

3. Replace the ■ with an integer which will make the equation (-32) ÷ ■ = (-8) true. 3._____

A) - 40
B) - 4
C) 4
D) 40

4. Which term is a word that describes a division operation? 4._____

A) difference
B) sum
C) product
D) quotient

5. Which operation must be completed first to solve the equation shown below? 5._____

$$\frac{(+2)\times(+12)+[(-2)+(+4)]}{(+5)-(+21)+(-2)}$$

A) (+2) x (+12)
B) (-2) + (+4)
C) (+5) - (+21)
D) (+21) + (-2)

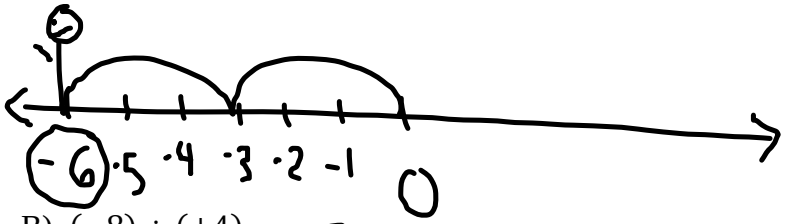
Part B: Constructed Response. Show ALL workings.

1. Write the following as a multiplication statement? (- 4) + (- 4) + (- 4) [1 mark]

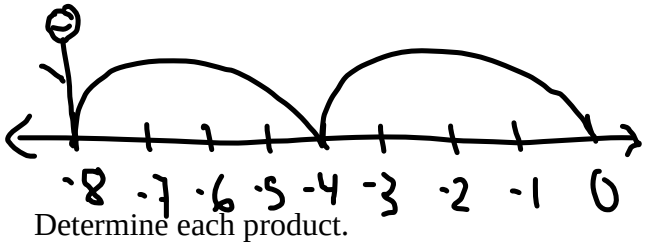
$(+3) \times (-4)$

2. Use a **MODEL** of your choice (i.e bank model, number line, etc…) to find each answer. [4 marks]

A) $(-2) \times (+3) = -6$



B) $(-8) \div (+4) = -2$



3. Determine each product. [3 marks]

A) 7 x (-6)

-42

B) (-12) x (+5)

-60

C) (-2)(+20)(-4)

$(-40)(-4)$

160

4. Determine each quotient. [3 marks]

A) (+49) ÷ (-7)

-7

B) (-48) ÷ (-6)

$+8$

C) $\frac{(+65)}{(-5)}$

-13

5. The Montreal Canadiens lose 4 games every week. How many weeks did it take them to lose 60 games? Write a number sentence for this problem and solve. [2 marks]

$(+60) \div 4 = +15$

It took 15 weeks

7. The Habs are excellent golfers because they practice a lot.
The top scores for the team are -3, -5, 4, 0, -8, and -6.

a) What is the combined score for their top six players? [1 mark]

$(-3)+(-5)+4+0+(-8)+(-6)$

$= -18$

b) What is the mean score for these top six players? [2 marks]

$\frac{-18}{6} = -3$

8. Evaluate each expression. [8 marks]

A) $(-6)+(+2)\times(+3)$

$=(-6)+6$

$=0$

B) $16 \div [2+(-6)]$

$=16 \div (-4)$

$=-4$

C) $12 \div (-6) + (-2) \times (-5)$

$=(-2)+10$

$=8$

D) $(-7)-(+32) \div (-8)$

$=(-7)-(-4)$

$=(-7)+(+4)$

$=-3$

9. Evaluate each of the following. [4 marks each]

A) $(12) \div (-4) + (-2)[(-3) \times (-3)]$

$=(12) \div (-4) + (-2)(9)$

$=(-3)+(-18)$

$=-21$

9. B) $\frac{(2)(-4)+[-8\div(+2)]}{5-7}$

$= (2)(-4) + [(-8) \div (+2)]$

$= (-2)(-4) + (-4)$

$= 8 + (-4)$

$= 4$

$= \frac{4}{-2}$

$= -2$

10. The product of two integers is 16. The sum of the same two integers is - 10. What are the two integers? [2 marks]

$(-8) \times (-2) = +16$

$(-8) + (-2) = -10$

∴ The integers are -8 and -2

11. Using the list below, which two integers have the greatest product? What is the product? [2 marks]

-2 -4 +5 -7 +6

$(+5) \times (+6) = 30$ biggest!

$(-7) \times (-4) = +28$

∴ 5 and 6 give the biggest product of 30.