6th Grade Summer Review Part I #1

Student Name : _____ Class Name : **6th Grade Section I ALEKS**

Number of Questions: **60** Instructor Name : **Hoyos, Michelle**

Question 1 of 60

Find the least common multiple of 7, 3, and 2.

Question 2 of 60

Multiply.

$$10 \times 2\frac{5}{6}$$

Write your answer as a mixed number in simplest form.

Question 3 of 60

Divide. Write your answer in simplest form.

$$\frac{6}{7} \div 4$$

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Question 4 of 60

Goran feeds his dogs a mixture that contains dry food. He has $\frac{3}{7}$ tubs of dry food. He needs $\frac{1}{4}$ tubs of dry food for each serving of the mixture. Complete the following to help Goran find how many servings of the mixture he has the dry food to make.

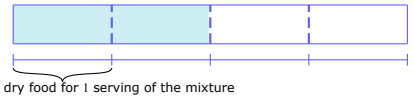
(a) Fill in the blanks to write an expression that gives the number of servings of the mixture Goran has the dry food to make. Choose only from $\frac{3}{7}$, $\frac{1}{4}$, $+$, $-$, $\times$, or $\div$.

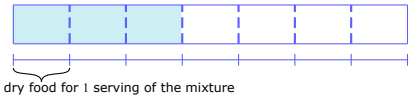
$\frac{3}{7}$ $\frac{1}{4}$ $+$ $-$ $\times$ $\div$

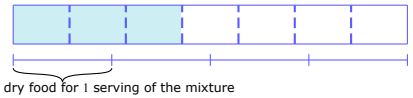
Expression: _____ _____ _____

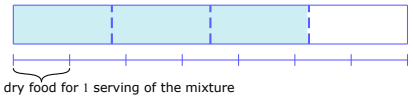
(b) Here is a figure that represents 1 whole tub of dry food.

Choose the figure that can be used to model how many servings of the mixture Goran has the dry food to make.









(c) Choose the correct statement about the number of servings of the mixture Goran has the dry food to make.

- It is less than 2 servings.
- It is more than 2 servings.
- It is exactly 2 servings.
- None of the above.

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Question 5 of 60

Kaitlin bought 2 CDs that were each the same price. Including sales tax, she paid a total of $\$25.40$. Each CD had a tax of $\$1.10$. What was the price of each CD before tax?

Question 6 of 60

Salma's dog gets 36.7 grams of protein in each meal. How much protein does the dog get in 4 meals?

Question 7 of 60

Multiply.

$$\begin{array}{r} 0.675 \\ \times \quad 50.9 \\ \hline \end{array}$$

Question 8 of 60

Divide. Write your answer in simplest form.

(a) $\frac{1}{5} \div 9 =$

(b) $9 \div \frac{1}{5} =$

Question 9 of 60

Fill in the blanks using only $\frac{4}{9}$, $\frac{20}{63}$, and $\frac{5}{7}$.

(a) ___ × ___ = ___

(b) ___ ÷ ___ = ___

Question 10 of 60

Lashonda must choose a number between 61 and 107 that is a multiple of 4, 7, and 14. Write all the numbers that she could choose. If there is more than one number, separate them with commas.

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Question 11 of 60

Deon is riding in a bike race that goes through a valley and a nearby mountain range.

The table gives the altitudes (in feet above sea level) for the five checkpoints in the race.

Use the table to answer the questions.

Checkpoint	Altitude (feet above sea level)
1	915
2	2577
3	-165
4	3261
5	-86

(a) Compare the altitudes of Checkpoint 1 and Checkpoint 4 using $<$, $>$, or $=$.

915 __ 3261

What is the meaning of the inequality above?

- Checkpoint 1 is higher than Checkpoint 4.
- Checkpoint 1 is lower than Checkpoint 4.

(b) Compare the altitudes of Checkpoint 3 and Checkpoint 5 using $<$, $>$, or $=$.

-165 __ -86

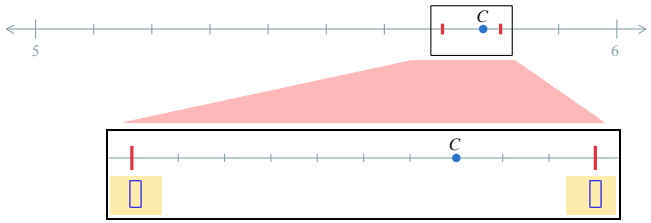
What is the meaning of the inequality above?

- Checkpoint 3 is higher than Checkpoint 5.
- Checkpoint 3 is lower than Checkpoint 5.

Question 12 of 60

The point C is shown on the decimal number line below.
Answer the questions that follow.

(a) In the figure below, the region around C has been enlarged.
Give the locations of the highlighted tick marks.
Write your answers as decimals.



(b) Use your answers from **(a)** to give the location of C.
Write your answer as a decimal.

Location of C: ☐

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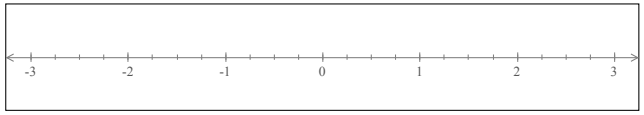
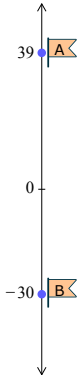
Question 13 of 60

Plot the numbers $-1\frac{1}{4}$ and $\frac{7}{4}$ on the number line below.



Question 14 of 60

A bike race goes through a valley and a nearby mountain range. The altitudes (in meters relative to sea level) for two checkpoints in the race are shown on the number line.



A positive altitude gives a distance above sea level. A negative altitude gives a distance below sea level.

(a) Find the absolute value of the altitude for each checkpoint.

Checkpoint A: $|39| =$ _____

Checkpoint B: $|-30| =$ _____

(b) Which checkpoint is closer to sea level?

- Checkpoint A
- Checkpoint B
- Neither is closer to sea level.

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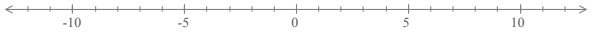
Question 15 of 60

What is the location of E on the decimal number line below?

Write your answer as a decimal.

Question 16 of 60

On the number line below, plot -8 and the opposite of -8.



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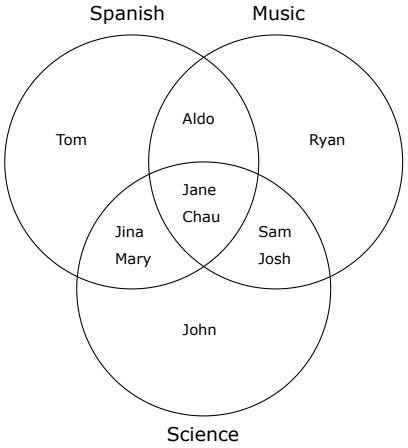
Question 17 of 60

A Venn diagram shows the memberships for the Spanish, Music, and Science clubs. Use the diagram to answer the questions below.



(a) Select all the clubs that Ryan is a member of.

☐ Spanish ☐ Music ☐ Science

(b) How many students are members of the Music Club but not the Spanish Club?

_____ students

(c) Which of these students are in all three clubs? Choose all that apply.

☐ Chau ☐ Mary ☐ Sam ☐ Josh ☐ Aldo ☐ Jane

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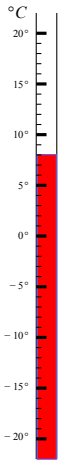
Question 18 of 60

What temperature does the thermometer show?



Question 19 of 60

Find all numbers whose absolute value is 6.

Question 20 of 60

The table below gives the monthly increases in users (in thousands) over five months for a social networking company.

Use the table to answer the questions.

Month	Increase in users (in thousands)
May	-113
June	53
July	13
August	-298
September	340

(a) Which month(s) had a loss in users, and fewer than 190,000 users were lost? Select all that apply.

☐ May ☐ June ☐ July ☐ August ☐ September

(b) Which month had the smallest change in the number of users?

○ May ○ June ○ July ○ August ○ September

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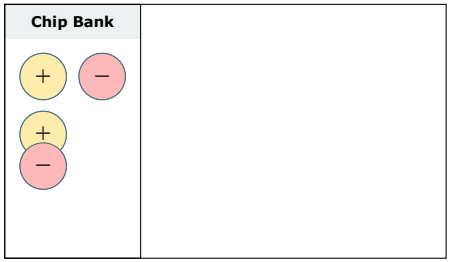
Question 21 of 60

Use the chips to add.

$1+(-6)$

(a) Show how to do the problem.



(b) $1+(-6)=$_____

Question 22 of 60

Evaluate each expression below.

$0 \div 4 =$

$\frac{0}{5} =$

Question 23 of 60

Answer the questions below.

Note that a change can be an increase or a decrease.
For an increase, use a positive number.
For a decrease, use a negative number.

(a) Lisa pumped 6 gallons of water into her pool each minute for 48 minutes. What was the total change in the amount of water in the pool?
____ gallons

(b) Pablo removed 80 fish from his pond over a period of 8 days. He removed the same number of fish each day. What was the change in the number of fish in the pond each day?
____ fish

Question 24 of 60

Add.

$5+(-2) =$
$-1+(-3) =$

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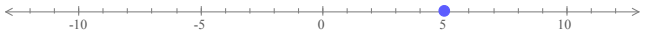
Question 25 of 60

The number 5 is plotted on the number line below.



Answer the following questions.

(a) Which is a point 2 units to the left of 5 ?

○ $-5+(-2)$ ○ $5+(-2)$ ○ $-5+2$ ○ $5+2$

(b) Which is a point 2 units to the right of 5 ?

○ $-5+(-2)$ ○ $5+(-2)$ ○ $-5+2$ ○ $5+2$

Question 26 of 60

Find the distance between I and J on the number line below.

Distance: ___

Question 27 of 60

Use the number line to add.

$-4+(-3)$

(a) Draw two arrows to show $-4+(-3)$.

(b) $-4+(-3) =$ _____

Question 28 of 60

Evaluate $3+15 \div (-3)$.

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Question 29 of 60

Subtract.

$-20-29 =$ _____

$-3-(-4) =$ _____

Question 30 of 60

Subtract.

$4-9 =$ ☐

$-3-5 =$ ☐

Question 31 of 60

Evaluate.

$-5(-1)(-4)(-2)$

Question 32 of 60

The table gives the temperature (in °F) in five cities at 6 a.m. on the same day. Use the table to answer the questions.

City	Temperature (°F)
Buffalo	-6
Nome	-33
Springfield	49
Orlando	64
Montreal	-15

(a) By noon, the temperature in Buffalo had risen by 15 °F.
What was the temperature there at noon?

☐ °F

(b) How much higher was the 6 a.m. temperature in Springfield than in Montreal?

☐ °F higher

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Question 33 of 60

Subtract.

$-3-1 =$ ☐

$3-6 =$ ☐

Question 34 of 60

Subtract.

$6-(-2) =$ _____

$-37-39 =$ _____

Question 35 of 60

Answer the questions below.

Note that a change can be an increase or a decrease.
For an increase, use a positive number.
For a decrease, use a negative number.

(a) A tram moved downward 25 meters in 5 seconds at a constant rate. What was the change in the tram's elevation each second?

____ meters

(b) In a lab, a substance was heated by 4 °C each hour for 40 hours. What was the total change in temperature?

____°C

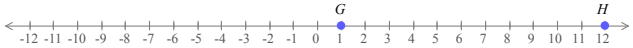
Question 36 of 60

Compute.

$-6+11-2-12$

Question 37 of 60

Find the distance between G and H on the number line below.



Distance: ___

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Question 38 of 60

Evaluate each expression below.

$$\frac{0}{3} =$$

$$7 \div 0 =$$

Question 39 of 60

Compute.

$$1 - 3 - 7$$

Question 40 of 60

Compute.

$$-2 + 8 - 4$$

Question 41 of 60

Multiply.

$$\frac{3}{5}\left(-\frac{1}{9}\right)$$

Write your answer in simplest form.

Question 42 of 60

There are 54 students in a speech contest. Yesterday, $\frac{1}{3}$ of them gave their speeches. Today, $\frac{2}{3}$ of the remaining students gave their speeches. How many students still haven't given their speeches?

Question 43 of 60

Multiply.

$$-4 \cdot \frac{5}{3} \cdot \frac{-2}{9}$$

Write your answer in simplest form.

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Question 44 of 60

Multiply.

$$-0.01 \cdot 542.6 =$$

$$0.5 \cdot (-0.9) =$$

Question 45 of 60

Add.

$$\frac{9}{-7} + \frac{3}{5}$$

Write your answer as a fraction in simplest form.

Question 46 of 60

Chang had $\frac{4}{7}$ of a spool of yarn. He used $\frac{4}{5}$ of his yarn for a project. What fraction of the spool was used for the project?

Write your answer in simplest form.

Question 47 of 60

Compute.

$$-2.351 - 4.87 =$$

$$15.23 + (-26.476) =$$

Question 48 of 60

Add.

$$-\frac{1}{2} + \frac{5}{8}$$

Write your answer in simplest form.

Question 49 of 60

Evaluate the following.

$$9.24 \times \frac{9}{4}$$

Write your answer as a decimal.

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Question 50 of 60

Evaluate the following.

$$42.9+53\frac{3}{5}$$

Write your answer as a decimal.

Question 51 of 60

Simplify.

$$\frac{3}{5}x+\frac{1}{3}x$$

Question 52 of 60

Simplify.

$$\frac{3}{4}u-\frac{1}{8}u$$

Question 53 of 60

Simplify.

$$-2(w+4)+6w$$

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Question 54 of 60

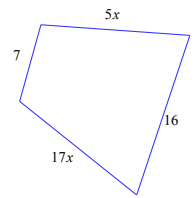
The expression $3(4+u)+6u$ is simplified in several steps below.

For each step, choose the reason that best justifies it.

Step	Reason
$3(4+u)+6u$	Given expression
$12+3u+6u$	- Commutative Property of Addition - Associative Property of Addition - Distributive Property - Combining like terms
$12+9u$	- Commutative Property of Addition - Associative Property of Addition - Distributive Property - Combining like terms
$9u+12$	- Commutative Property of Addition - Associative Property of Addition - Distributive Property - Combining like terms

Question 55 of 60

Write two expressions for the perimeter of the figure.



Note: The figure is not drawn to scale.

(a) Use all four side lengths.

perimeter = ___ + ___ + ___ + ___

(b) Simplify the expression from part (a).

perimeter = _____

Question 56 of 60

Simplify.

$$7.6d-2.8d$$

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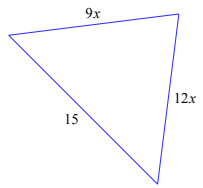
Question 57 of 60

Write two expressions for the perimeter of the figure.



Note: The figure is not drawn to scale.

(a) Use all three side lengths.

perimeter = ___ + ___ + ___

(b) Simplify the expression from part (a).

perimeter = _____

Question 58 of 60

Simplify.

$2u - 10u$

Question 59 of 60

Simplify.

$3.6a + 4.6a$

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Question 60 of 60

The expression $3 + (7 + 8u)$ is simplified in several steps below.

For each step, choose the reason that best justifies it.

Step	Reason
$3 + (7 + 8u)$	Given expression
$(3 + 7) + 8u$	- Commutative Property of Addition - Associative Property of Addition - Distributive Property - Combining like terms
$10 + 8u$	- Commutative Property of Addition - Associative Property of Addition - Distributive Property - Combining like terms
$8u + 10$	- Commutative Property of Addition - Associative Property of Addition - Distributive Property - Combining like terms

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