

# ALEKS® Recitation 1 #4

College Algebra with Trigonometry / Math 005 201608 - 07 (Prof. Sitaraman)

Student Name/ID:

1. Evaluate the expression when  $b = 5$ .

$$b^2 - 7b - 6$$

2. Evaluate.

$$-7^2 = \square$$

$$-(-3)^3 = \square$$

3. Follow the instructions below.

Write  $4x^2$  without exponents.

$$4x^2 = \square$$

Fill in the blanks.

$$4x^2 = \square x^{\square}$$

4. Simplify.

$$\left(\frac{x^5 y^4}{x^3 y}\right)^5$$

Write your answer using only positive exponents.

5. Simplify.

$$y^{-3} \cdot y^6 \cdot y^{-4}$$

Write your answer with a positive exponent only.

6. Simplify.

$$\frac{x^6}{x^4}$$

7. Simplify.

$$(2x^{-3}y^4)^{-5}$$

Write your answer using only positive exponents.

8. Simplify.

$$\frac{8abc}{64c}$$

9. Simplify.

$$(-6a^4b^2)^2$$

Write your answer without parentheses.

10. Rewrite the expression without using a negative exponent.

$$\frac{1}{4z^{-5}}$$

Simplify your answer as much as possible.

11. Use the distributive property to remove the parentheses.

$$-(v - x - 1)$$

12. Translate the sentence into an equation.

*Eight less than the quotient of a number and 6 equals 3.*

Use the variable  $y$  for the unknown number.

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



Distance: \_\_\_\_

14. The sets  $F$  and  $H$  are defined as follows.

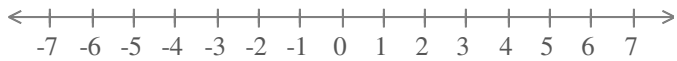
$$F = \{w \mid w > 4\}$$

$$H = \{w \mid w \leq 5\}$$

Write  $F \cup H$  and  $F \cap H$  using interval notation.

If the set is empty, write  $\emptyset$ .

15. Graph the set  $\{x \mid x \leq 5\}$  on the number line.  
Then, write the set using interval notation.



# Recitation 1 #4 Answers for class Math 005 201608 - 07

1.  $-16$

2.

$$-7^2 = -49$$

$$-(-3)^3 = 27$$

3.

Write $4x^2$ without exponents.	
	$4x^2 = 4 \cdot x \cdot x$
Fill in the blanks.	
	$4x^2 = 4x^2$

4.  $x^{10}y^{15}$

5.  $\frac{1}{y}$

6.  $x^2$

7.  $\frac{x^{15}}{32y^{20}}$

8.  $\frac{ab}{8}$

9.  $36a^8b^4$

10.  $\frac{z^5}{4}$

11.  $-v + x + 1$

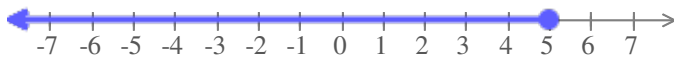
12.  $\frac{y}{6} - 8 = 3$

13. Distance: 9

14.  $F \cup H = (-\infty, \infty)$

$F \cap H = (4, 5]$

15.



$\{x \mid x \leq 5\} = (-\infty, 5]$