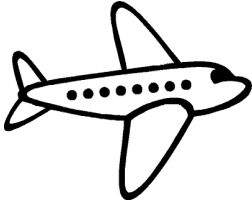
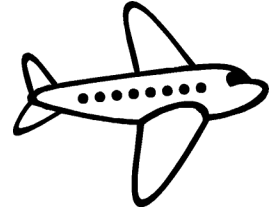


**NAME:** \_\_\_\_\_



## HIGH-FLYING ALGEBRAISTS



### Directions:

1. Make sure the clouds are in place, and all the cartoon algebraists are at the top of the bulletin board, under the plane.
2. Each student will work individually on this activity.
3. Start with cloud question number 1 (under Shrek). This question is the first question that deals with radicals. Read the question and then copy it down on your worksheet. Then, put the cloud in the cloud discard box/envelope. Move Shrek down to where the cloud question number 1 used to be.
4. Then, take cloud question number 2. Read the question and then copy it down on your worksheet. Put this cloud then into the cloud discard box/envelope. Move Shrek down to where the cloud question number 2 used to be.
5. Do the same steps with cloud question number 3, and then again with cloud question number 4. After you have put Shrek where cloud question number 4, you have completed the questions on radicals, and landed Shrek safely onto the ground.
6. Repeat the same process with Spongebob and his cloud questions on exponents. Make sure to copy down all of his questions (5-8) onto the worksheet, and land him safely onto to the ground.
7. These steps in copying down the problems and moving the characters is repeated for the rest of the characters: Donatello (polynomials), Mickey Mouse (matrices), and Bugs Bunny (inequalities).
8. All of these questions (1-19) you are copying onto your worksheet are to be completed at home or in class. The very last problem, cloud question number 20, is the only problem that is to be completed right now. After you write down question number 20, complete it. Use the calculator provided if needed. Then, hand in the problem immediately after completion. Do this by separating the last page (with number 20) and put this page in the folder on the bulletin board.

(MAKE SURE YOUR NAME IS ON IT!)

## **LET'S GET STARTED!**

### **Shrek: Radicals**

**1) Using the Quotient Property, simplify the expression:**

**2) Simplify the expression:**

**3) Solve the equation for  $X$  using the Quadratic Formula:**

**4) Using the Product Property, simplify the expression:**

## **Spongebob Squarepants: Exponents**

**5) Simplify the expression:**

**6) Evaluate the expression:**

**7) Simplify the algebraic expression:**

**8) Evaluate the expression:**

**Donatello: Polynomials**

**9) Find the product of the polynomial:**

**10) Simplify the expression:**

**11) Use direct substitution to evaluate the polynomial function for the given value of  $X$ .**

**12) Factor the polynomial by grouping:**

**Mickey Mouse: Matrices**

**13) Perform the indicated operation:**

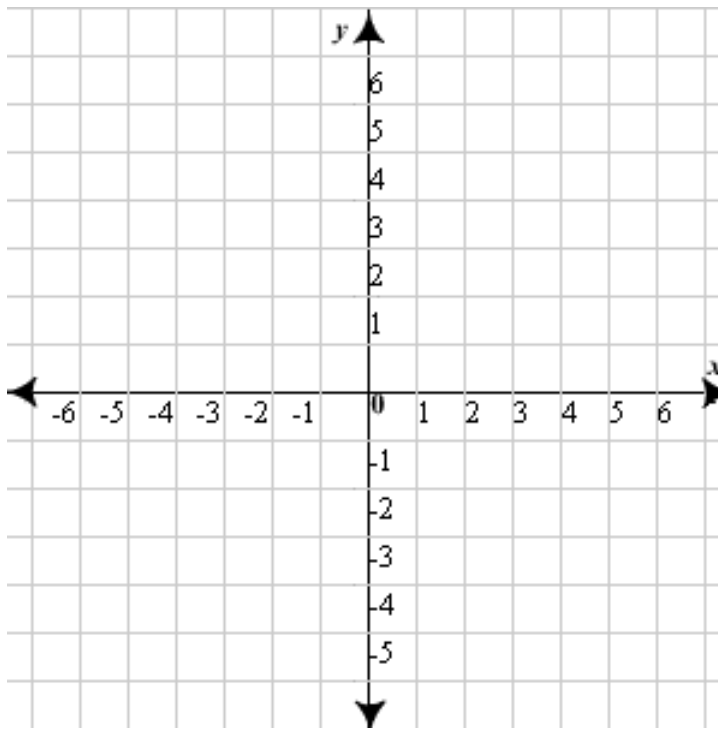
**14) Perform the indicated operation:**

**15) Find the inverse of the matrix:**

**16) Evaluate the determinant of the matrix:**

**Bugs Bunny: Inequalities**

**17) Graph the equation of inequality:**



**18) Solve the inequality:**

**19) Solve the inequality:**

NAME: \_\_\_\_\_

20) Graph the equation or inequality

