# Math TACTivities for Elementary Educators

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## ABSTRACT

**Math TACTivities provide students with an understanding about math topics by engaging them through hands-on experiences. These TACTivities provide a great opportunity for students to work together to understand and solve problems.**

## Why TACTivities?

- Provides students with hands-on experience
- Promotes student engagement
- Creates excitement about math
- Highlights features of a topic
- Emphasizes that math is fun
- Relates math with the physical world
- Develops teamwork
- Enhances problem solving skills
- Allows students to draw their own conclusions
- Motivates students to learn math
- Requires multiple perspective thinking of the problem
- Encourages out of the box thinking

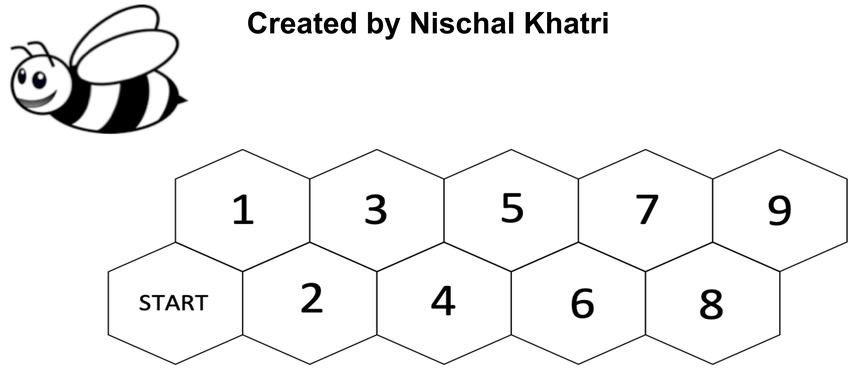
## IN CLASS RESULTS: Percent TACTivity

| | | |
|---|---|---|
| 87½ % | ⅜ | 0.75 |
| ¼ | 62½ % | 0.125 |
| 0.375 | 50 % | ⅛ |
| 25 % | ⅞ | 0.3333 |
| 75 % | 0.25 | ⅔ |
| ⅓ | 37½ % | 0.625 |
| 0.875 | ⅝ | 66⅔ % |
| ¾ | 33⅓ % | 0.5 |
| 0.6666 | ½ | 12½ % |

Students were given the above sheet of unordered fractions, percents, and decimals. After cutting and matching the equivalent values they were instructed to order the matches least to greatest on a chart. This was used to assist the students in answering percent-based word problems. The goal was to connect the word problem solutions to the corresponding values on the chart.

## FI-BEE GAME

**Created by Nischal Khatri**




**Goal:** To count the number of different paths that the bee can travel from start to arrive at each cell.

**Rules of the Game:**

1.The bee begins its journey on start.
2.The bee must proceed in an increasing order.
3.The bee may only travel through adjacent cells.

## FIVES BINGO

| F | I | V | E | S |
|---|---|---|---|---|
| $14_5$ | 65 | $114_5$ | 5 | 73 |
| 4 | $102_5$ | $244_5$ | 76 | $31_5$ |
| 59 | 11 | | $142_5$ | 54 |
| 44 | $200_5$ | $11_5$ | $30_5$ | $33_5$ |
| 53 | 41 | 24 | $141_5$ | 69 |

**Description:** As shown above, the boards have values in both base 5 and base 10, as do the call cards. The numbers range from $1_{10}$ to $76_{10}$. (If the number selected is in base 5, it will only appear in base 10 on the boards and vice versa.)

**Rules of the Game:**

FIVES Bingo follows the basic bingo rules, but when they have 5 in a row they call “FIVES!”

## IN CLASS RESULTS: Fraction TACTivity

**Description:** Students were given a sheet of fraction bars and instructed to rip them into 1 whole, 2 halves, 3 thirds, 4 fourths, 5 fifths, and 6 sixths. Students completed a variety of activities using their fraction bars as visuals to understand equivalencies and values. Some examples are shown below.

**Examples:**

1. Students were instructed to use the fraction bars to show certain amounts, such as how many combinations add up to 1 whole.

1. 6/5 ____ 12/5
2. 7/12 ____ 2/5
3. 19/20 ____ 23/24
4. 1/6 ____ 1/4

2. Students were given a list of fractions to compare using symbols (e.g., <, >, =). A few comparisons are noted above.

| | | | | |
|---|---|---|---|---|
| $\frac{2}{5}$ | $\frac{9}{24}$ | $\frac{18}{22}$ | $\frac{20}{18}$ | $\frac{27}{72}$ |

3. Students were given a strip of fractions, as shown above, and instructed to order them least to greatest.

## STUDENT RESPONSES

**Question:** What topic/lesson did you find most engaging so far in this course?

“The fraction bar TACTivity.”

“Using TACTivities, like fraction bars, to understand our chapter...I’m a visual learner.”

“Any lesson with fractions because we got to cut out pieces to physically see how to manipulate fractions.”

“The topics that involved hands-on projects, like dealing with fractions.”

“The TACTivities, such as fractions and percents, that provided hands-on collaborative work.”