

Math Physical Challenge

3rd - 6th Grade

OBJECTIVE

To compete in a mental and physical challenge.

MATERIALS

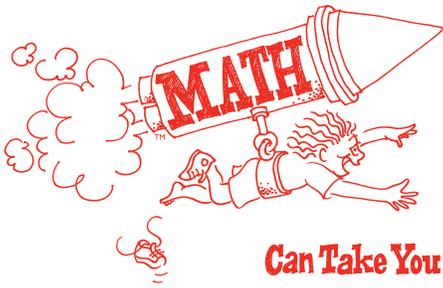
- Mental Math Cards (Regular - black and white, Easy - colored) - one set of each
- Physical Challenge Cards - one set of each
- Masking tape or four cones to mark off area
- One basketball
- Dry-erase board, chalkboard, or scratch paper to help with younger or more challenged students

BEFORE YOU START

- This activity must be performed in an open area, ideally a gymnasium.
- Facilitators should use their discretion when giving students physical challenges. For example, instead of assigning ten jumping jacks, have a child do five.
- Place tape markers or cones on the floor to define the start and finish lines. Markers should be approximately 50 feet apart.
- Regular cards will be black and white. Easy cards will have underlined numbers.
- Prepare Mental Math and Physical Challenge cards ahead of time.

HOW TO START

Say: "Have any of you heard the fable about the tortoise and the hare? The hare challenged the tortoise to a foot race. The hare was so sure he would win, he decided to take a nap. But by the time the hare woke up, the tortoise was slowly creeping across the finish line. The lesson in this fable is that 'slow and steady wins the race.' Today, you will also be competing in a race. However, just like with the hare and the tortoise, being the fastest will not necessarily make you the winner."



Can Take You Places

FOCUS AREA

Problem Solving

ACTIVITY TYPE

Active

MATH GOAL

To mentally solve math problems

NUMBER OF STUDENTS

This activity is recommended for up to 20 children, divided into two teams.

TIME NEEDED

45 minutes

STEPS

Step 1

Divide students into two even teams. Choose one student to be the score keeper. For mixed groups, make sure there is an even distribution of younger students per team. Line each team up in single file with one participant standing in back of the other behind the starting tape on the floor.

Step 2

The facilitator will read a Physical Challenge card to the first members of each team. An example of a physical challenge would be, “Touch your toes five times.” The two players will race to finish the physical challenge. The first player finished gets first chance at answering the Mental Math question. If that player answers correctly, his or her team gets a point. A player who answers incorrectly must repeat the physical challenge. At that time, the other team will get a chance to answer the same question.

Step 3

Players keep repeating the physical challenge until someone correctly answers the mental math question. Then those two players go to the end of the line. In order to make the game easier for students who have extra difficulty with the problems, allow them to use chalkboard or scratch paper, or give them more time to answer.

Repeat steps 2 and 3 with the next players from each team. The first team to earn 20 points wins.

WRAP UP

Ask if students used any strategies to solve the mental math questions. Then, have a discussion about their strategies or tricks. Finally, have students create their own mental math and physical challenge cards for a future game.

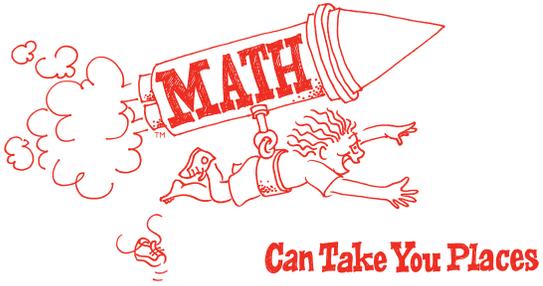
OPTIONAL ACTIVITIES

- Have students create a poem or chant that will help them memorize their multiplication facts.
- Students can research mental math tricks on the Web. Let them share the strategies they learned with each other. (See Web Resources.)
- You can also make this game last longer with more teams that have fewer people on each team.

SUGGESTED MATH CAN TAKE YOU PLACES CONNECTIONS

From *Math Can Take You Places After-School Kit*

- Equivalency activity: Right on Time
- Measurement activity: Perimeter Kick
- Problem Solving activity: Scrambled Digits



Activity Cue Card

- Divide students into two teams; choose one student to be the score keeper.
- Facilitator will read a physical challenge card. The first player to complete the physical challenge has the first chance to solve the Mental Math Card.
- For a correct answer, that player's team receives a point. Both players then go to the end of their lines.
- Players who miscalculate a Mental Math Card must repeat the physical challenge before having another chance to solve the Mental Math Card.
- The first team to earn 20 points wins.

Physical Challenge Cards

10 jumping jacks	5 crunches
Skip to the tape and back	Crab walk to the tape and back
Hop to the tape and back	10 hops on one foot
10 toe touches	3 push-ups
Dribble ball 5 times	Toss ball overhead and catch it 5 times
Run to the tape and back	Fast walk to the tape and back
Walk backwards to the tape and back	

Math Challenge Regular Cards
(regular game - black and white)

9×9	7×7	8×6	8×7	9×8
90×2	70×4	80×5	60×6	50×7
$54 \div 6$	$63 \div 9$	$35 \div 5$	$72 \div 9$	$24 \div 8$
$36 \div 4$	$18 \div 6$	$100 \div 10$	$50 \div 5$	$48 \div 6$
$\$20 + \6	$\$10.25 + 75 \text{ cents}$	$\$2 + \3.50	$\$7 + \10.00	$75 \text{ cents} + 25 \text{ cents}$
$\$15 + \4	$\$2.50 + \2	$\$12 + \6	$50 \text{ cents} + 75 \text{ cents}$	$\$5.50 + 10 \text{ cents}$
$7 \times 2 + 8$	$4 \times 4 - 4$	$10 \times 5 + 2$	$3 \times 2 - 2$	$8 \times 4 + 10$
$5 \times 6 - 10$	$2 + 30 - 5$	$9 \times 5 - 5$	$3 \times 4 - 1$	$9 \times 3 + 3$

Math Challenge Easy
(Underlined numbers)

$\underline{2} \times 4$	$\underline{9} \times 2$	$\underline{3} + 7 - 2$	$\underline{10} + 5 - 3$	$\underline{6} + 5 - 1$
$\underline{4} \times 2 + 1$	$\underline{\$5} + \underline{\$5}$	$\underline{\$10} + \underline{\$10}$	$\underline{10} + 3 - 1$	$\underline{\$10} + \underline{\$5}$
$\underline{4} \times 5$	$\underline{6} \times 2 + 3$	$\underline{7} \times 5$	$\underline{10} \times 8$	$\underline{6} \times 4$