

Math 5 - Act. 01: Multiplication Strategy Review

Summary

Students will play a game to practice all of the strategies for multiplication they have learned.

Group Size

Small Groups

Materials

Strategy cards (one of each strategy per group of four)

Problem cards appropriate for the level of the students (two-digit by two-digit provided)

1 calculator for each group

Additional Resources

One Hundred Hungry Ants by Elinor Pinczes

Math by Hand Application Guidebook by Texas Instruments

Background for Teachers

Students will already have been exposed to the following multiplication strategies: modeling multiplication with arrays, partial product multiplication, lattice multiplication, and traditional multiplication. These strategies are reviewed on the "partial.pdf" attachment below.

Intended Learning Outcomes

2. Become mathematical problem solvers.

6. Represent mathematical situations.

Instructional Procedures

Invitation to Learn

Pose the problem " 35×27 ." Ask students to come up and share different ways to solve the problem. Inform the students that they are going to play a game in groups of four to practice all of the strategies for multiplication they have learned.

Instructional Procedures

Review partial product, lattice, and traditional multiplication strategies, if necessary.

Explain the rules for the game.

Deal one procedure card to each member of the group. That tells which strategy he or she will use to solve the first problem.

The problem cards are facedown in the center of the group.

The person with the "calculator" card flips over the first problem card. That person is in charge of checking the other players' answers when each of them finishes computing the problem.

When a person is finished solving the problem, he or she shows his or her answer to the "calculator person." That person will give thumbs up or thumbs down to show if the correct answer is displayed.

If someone cannot answer the problem using the strategy on his or her card, the team works together to help that person arrive at the correct answer.

When everyone has shown the correct answer, the "strategy cards" are rotated to the right so each person has a new way to practice multiplication.

The person with the calculator card becomes the new leader and flips over the next problem card and the process repeats.

Arrange students by groups of four and let play begin.

Curriculum Integration

Math/Science--Read *One Hundred Hungry Ants* to show multiplication with arrays, and use TI-73 calculators.

Extensions

Possible Extensions/Adaptations

Arrange your groups according to ability and give them appropriate problem cards for their levels. You may have one group working on simple two-digit by two-digit computations, while others may be doing three-digit by two-digit computations.

Use the *Math by Hand Application* on the TI-73 graphing calculators, which models partial product multiplication.

Assessment Plan

Use the Two Ways to Solve worksheet as your assessment piece. Students will have to demonstrate a knowledge of multiple strategies and journal which way they prefer and why.

Authors

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