

## summary of tape 2

# Teaching and Learning About Multiplication and Division

After a brief introduction, this narrated videotape is presented in five segments: "Thinking About Equal Groups," "Learning About Factors," "Understanding How Multiplication Works," "Understanding How Division Works," and "Conclusion." A summary is provided only for the student work to be discussed during Session 3.

### Understanding How Multiplication Works

This segment of the tape shows two third graders explaining how they would find "how many legs are on 29 elephants," followed by three fifth graders solving two-digit multiplication problems.

**RYSHAWN**  $29 \times 4$   
 $25 + 25 + 25 + 25 = 100$   
 $4 + 4 + 4 + 4 = 16$   
 $29 \times 4 = 116$

**NICHOLAS**  $29 \times 4$   
 $20 \times 4 = 80$   
 $9 \times 4 = 36$   
 $80 + 36 = 116$

**JEMEA**  $29 \times 12$   
 $30 + 30 + 30 + 30 + 30 + 30 + 30 + 30 + 30 + 30 + 30 + 30 = 360$   
 $360 - 12 = 348$

**JEN**  $89 \times 12$   
 $89 \times 10 = 890$   
 $890 + 100 + 100 = 1090$   
 $1090 - 10 - 10 = 1070$   
 $1070 - 1 - 1 = 1068$

**THOMAS**  $36 \times 17$   
I added 4 to 36 to make it 40, and I added 3 to 17 to get to 20.  
$$\begin{array}{r} 40 \\ \times 20 \\ \hline \end{array}$$

So I timesed 40 times 20 to get up to 80 [he likely means 800].  
I knew it wasn't the answer, so I minused 4 because I added 4 to get up to 40, and that brought me to 796.  
And I minused 3 'cause I had to add 3 to get to 20, and I got the answer 793.