Name _____ Date _____

4 x 25 =	16 x 25 =
40 x 25 =	10 x 25 =
27 ÷ 3 =	10 x 13 =
2 x 13 =	12 x 13 =
6 x 26 =	3 x 90 =
12 x 9 =	12 x 12 =
6 x 18 =	6 x 24 =
152 x 20 =	152 x 10 =
152 x 2 =	12 x 152 =
40 x 5 =	39 x 5 =

Directions:

Explain that you want to know which problems they think are easy.

Ask students to look at the page first and find all of the easy ones. They should not just go in order down the page, but should do all the ones that are easy for them first. Have them use a red pen to do all of the easy ones and provide only 2 minutes for this. Then have them switch pens to a different color and finish, providing approximately 2 more minutes.

Scoring:

This two-pen is designed to pick up children's use of the associative and distributive properties.

The Associative Property. Note how several of the problems are related. For example, if 4 x 25 is easy but the related problems of 40 x 25 and 16 x 25 are not, the child is not making use of the associative property: (10 x 4) x 25 is equal to 10 x (4 x 25) and (4 x 4) x 25 = 4 x (4 x 25). Doubling and halving is a specific case of the associative property and several other problems on the page allow you to pick up information on the use of this strategy: 12 x 12 = 6 x 24. Often children know 12 x 12, but find 6 x 24 more difficult and resort to repeated addition. Similarly, 12 x 13 and 6 x 26 are equal. If children do not make use of these relationships, they can benefit from strings like those found on pages 25-28 of *Minilessons for Extending Multiplication and Division* (Uittenbogaard and Fosnot, Heinemann Press).

The Distributive Property. The problems 10 x 13, 2 x 13, 12 x 13 are designed to pick up the use of the distributive property. Several others on the page make use of partial products as well. Strings for the development of this relationship can be found on pages 30-35 of *Minilessons for Extending Multiplication and Division* (Uittenbogaard and Fosnot, Heinemann Press).