

3.3

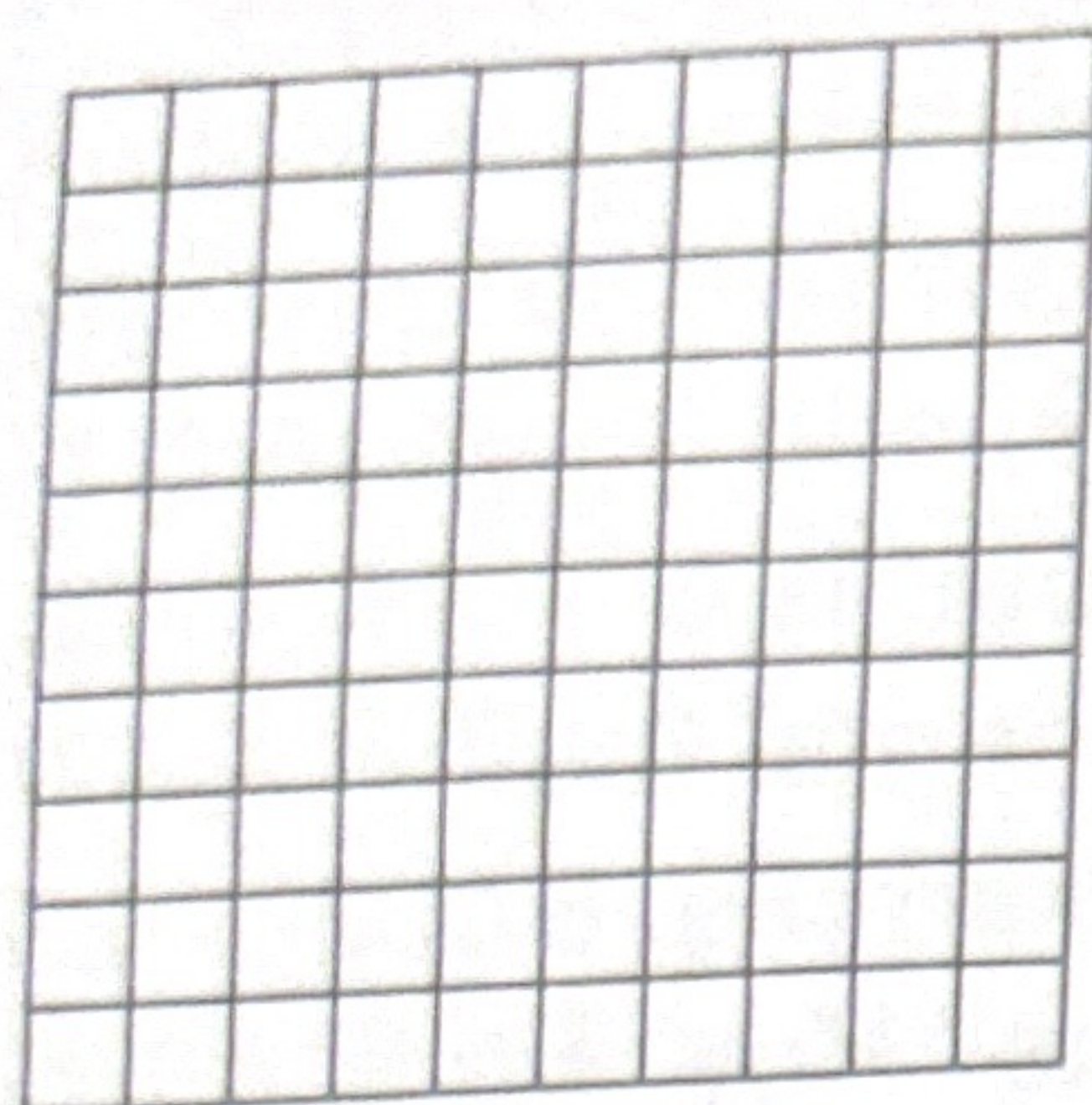
Multiplying by Numbers Less than 1

GOAL

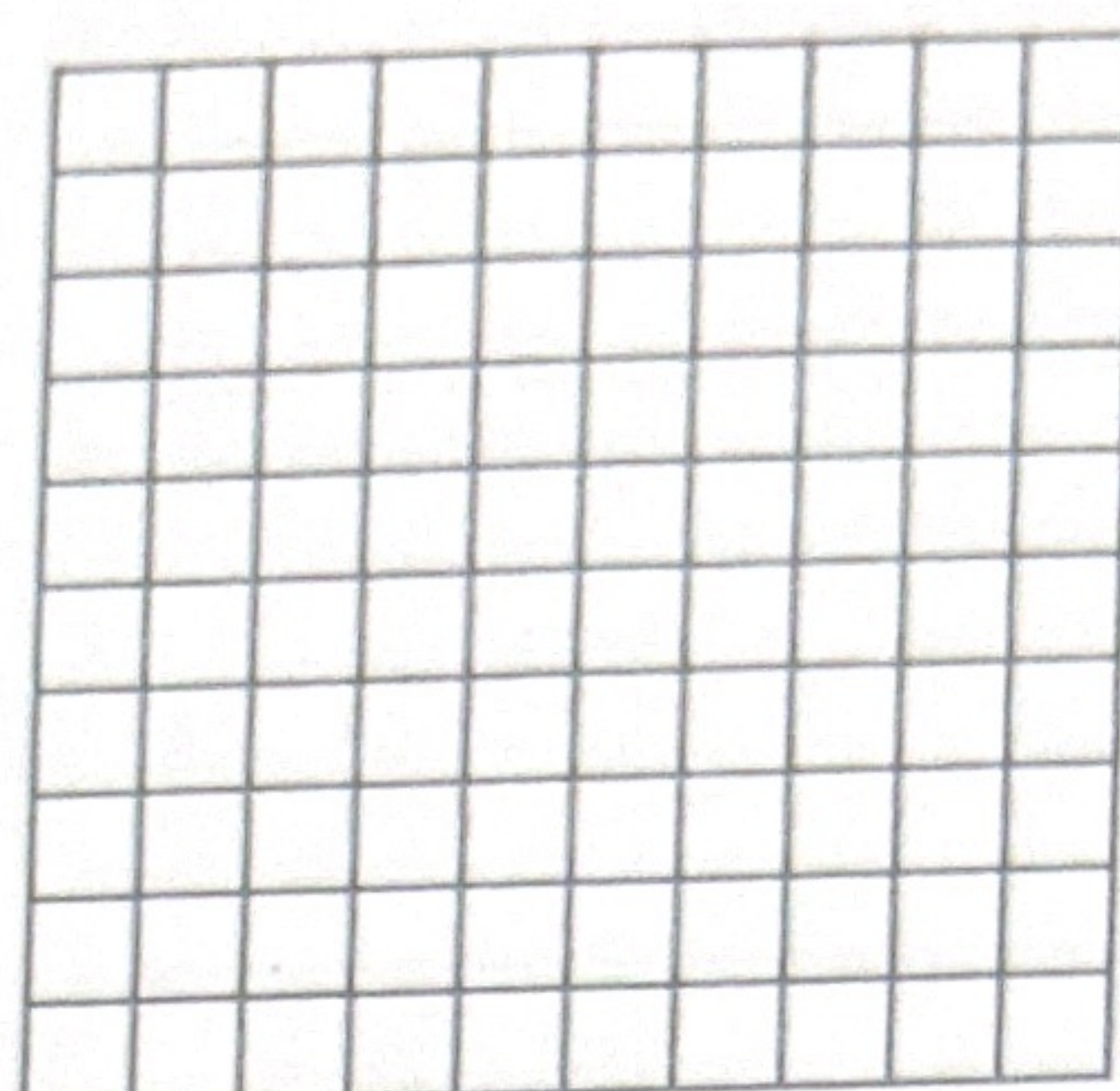
Multiply by decimals less than 1.

1. Use a grid to model each multiplication.

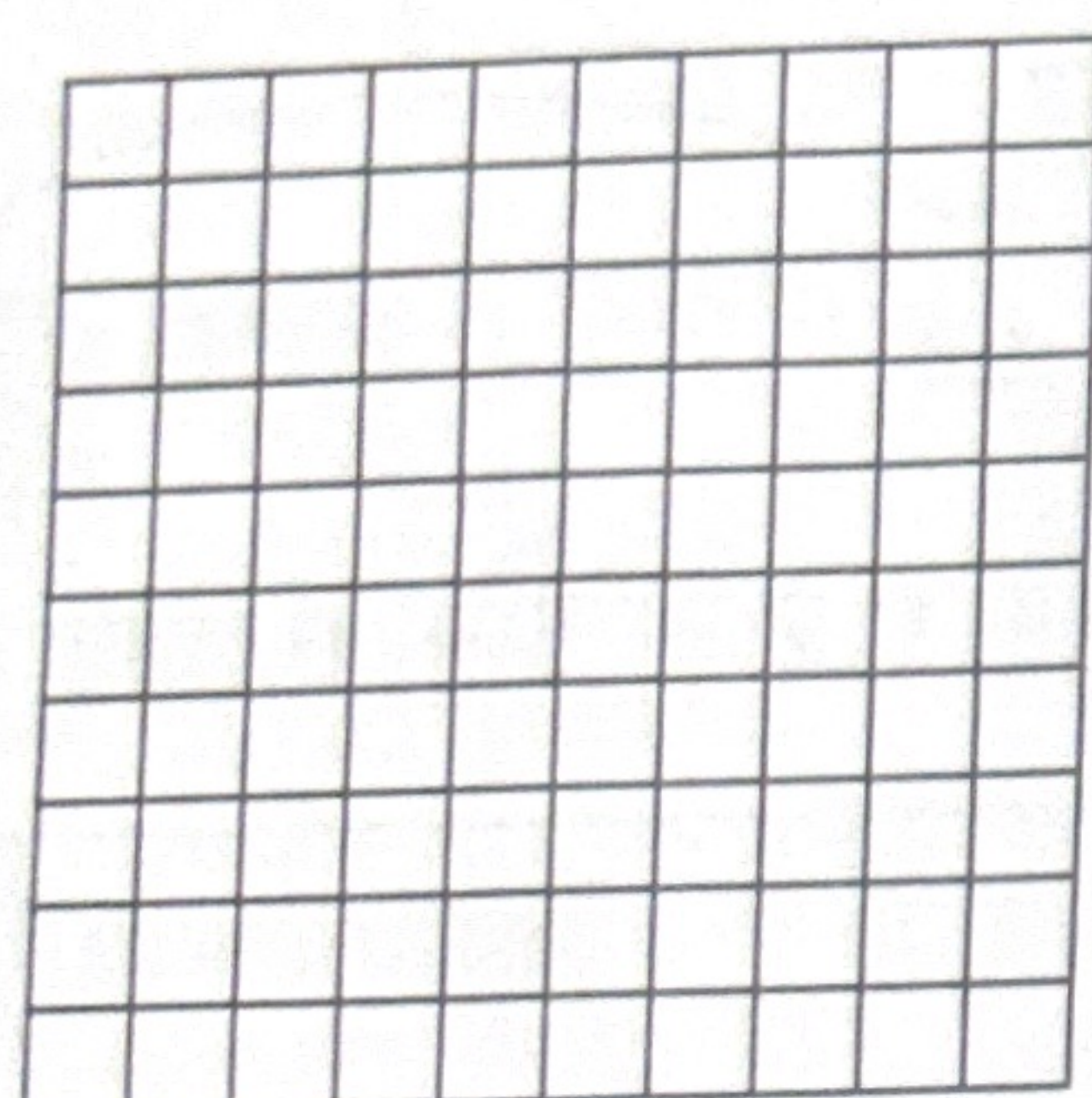
a) $0.6 \times 0.2 = \underline{0.12}$



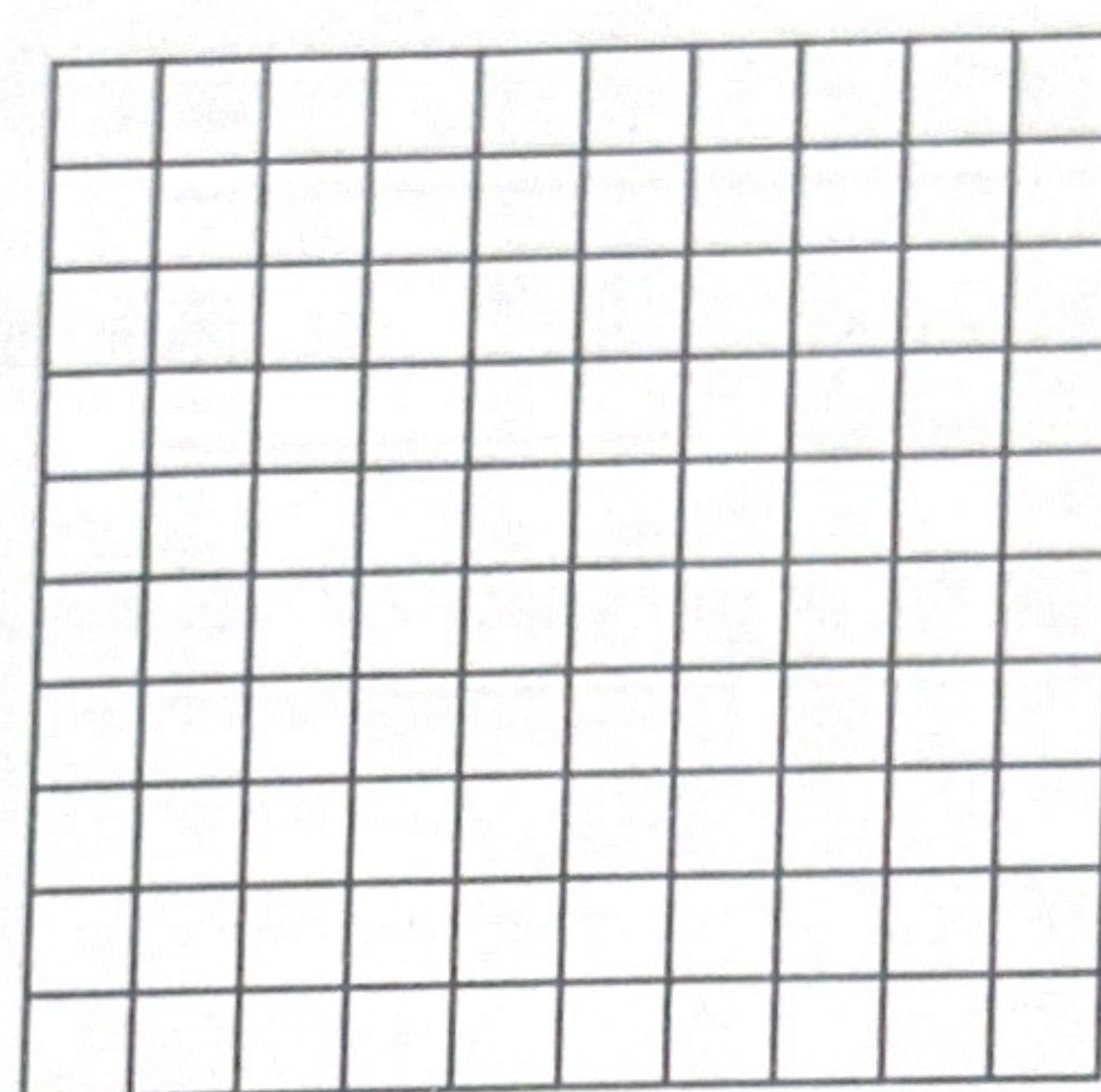
c) $0.8 \times 0.7 = \underline{0.56}$



b) $0.3 \times 0.9 = \underline{0.27}$



d) $0.5 \times 0.5 = \underline{0.25}$



2. Calculate.

a) $4.5 \times 0.2 = \underline{0.90}$

d) $8.7 \times 0.3 = \underline{2.61}$

b) $1.3 \times 0.4 = \underline{0.52}$

e) $9.2 \times 0.5 = \underline{4.60}$

c) $3.2 \times 0.6 = \underline{1.92}$

f) $5.6 \times 0.8 = \underline{4.48}$

3. Predict the order of these four products from least to greatest: c, b, a, d
Check your prediction by calculating.

a) $6.5 \times 0.7 = \underline{4.55}$

c) $9.6 \times 0.2 = \underline{1.92}$

b) $8.4 \times 0.4 = \underline{3.36}$

d) $7.7 \times 0.9 = \underline{6.93}$

4. Julie bought apples at the market. Apples cost \$0.75 for each kilogram. If Julie bought 6 kg of apples, how much did she pay?

$$0.75 \times 6 = 4.50 \$$$

At-Home Help

Here are some strategies to multiply decimals:

- Estimate, and then use your calculator.
- Use a 10 by 10 grid to model the problem.

For example, to multiply 0.3×0.4 , colour three columns to show 0.3, and four rows to show 0.4. Then, count the squares in the area where the shaded parts overlap. There are 12 squares in the overlapping area, so the answer is 0.12.

