

Estimating the Product of a Decimal and a Whole Number

You can estimate when you are multiplying a decimal by a whole number to check the reasonableness of your product.

Zane needs to buy 27 lb of roast beef for the company party. The roast beef costs \$2.98 per pound. About how much will the roast beef cost?

There are two ways to estimate.

Round both numbers

$$\begin{array}{r} \$2.98 \times 27 \\ \downarrow \quad \downarrow \\ \$3 \times 30 = \$90 \end{array}$$

The roast beef will cost about \$90.

Adjust your factors to compatible numbers you can multiply mentally.

$$\begin{array}{r} \$2.98 \times 27 \\ \downarrow \quad \downarrow \\ \$3 \times 25 = \$75 \end{array}$$

The roast beef will cost about \$75.

Estimate each product.

1. 0.8×22 _____

2. 19.3×6 _____

3. 345×5.79 _____

4. 966×0.46 _____

Use the chart to answer questions 5 through 7.

5. About how much would it cost for Angelina and her 4 sisters to get a shampoo and a haircut?

Treatment	Cost
Shampoo	\$7.95
Haircut	\$12.95
Coloring	\$18.25
Perm	\$22.45

6. Could 3 of the sisters get their hair colored for less than \$100?

7. Angelina gets 9 haircuts per year. About how much does she spend on haircuts for the year?
