Freeda needs to buy new shoes for soccer. She has done a little research and has decided Super Kicks are the best for her feet. She has the following three options for her purchase:

1. Shoes For You is having a sale on all sports shoes for 4/5 the original cost.

2. Sneaker Barn is having a 10% off all merchandise sale. Freeda also has a 10% discount card for Sneaker Barn. It can be combined with other offers, and the discount applies to the “final” price of the items.

3. Freeda’s mom works at Fantastic Footwear and gets an 18% employee discount. Given that all three places sell Super Kicks for the same original price, which do you think is the most frugal choice for Freeda to make. Why?

**MATH STANDARDS ALIGNMENT:**
Understand a fraction 1/b as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size 1/b.

Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem.

**Personal Finance Big Ideas:**
*Time Value of Money*

**METHOD 1: CHOOSE $100 AS THE VALUE FOR THE SHOES**
Our first step was to decide a price for the shoes. We decided on a price of $100 because that would be easy to use. Then we used our math skills to find the discounted price that Freda would receive at each store.

At Shoes for You, she would get the shoes for 4/5 of the price. We divided $100 into fifths. 1/5 would be $20, so 4/5 would be $80. She would pay $80 at Shoes for You.

At Sneaker Barn she would get 10% off, then 10% off of that price. 10% of $100 is $10. So the first discount brings the price to $90. Then 10% of $90 is $9, so the final price would be $81.

At Fantastic Footwear she would get an 18% discount. That is $18 off of $100. That would bring the price to $82. Therefore Shoes for You is the best deal. This would not matter what the original price is. It would still be the largest discount.
METHOD 2: COMPARE THE PERCENTAGE DISCOUNTS
If all the stores sell the Super Kicks shoes for the same price, then you just have to figure out what percentage each of
the stores discounts.

Shoes for You sells for 4/5 the cost - you divide 5 into 4 and get .80 or 80%. If they sell for 80%, they give a 20%
discount. This easily beats her moms 18% employee discount at Fantastic Footwear.

Sneaker Barn is a little more complicated. You get 10% off of the price and then another 10% off of the final cost. I
used a sample cost of $100. $100 * 10% = $10 leaving $90 as the new final cost. $90 * 10% = $9 Making the total
discount $19 or 19%. 20% at Shoes for You is the greatest discount.

METHOD 3: CHOOSE $20 AS THE VALUE FOR THE SHOES
We decided to choose a number to be the price of the shoes. We chose $20.

Shoes for You: We found 1/5 of 20 by dividing 20 by 5. Then we multiplied 4 by 4 to get 4/5. So the shoes at Shoes for
You would cost $16.00.

Sneaker Barn price:10% is the same as 1/10 so we found that 1/10 of $20.00 is $2.00. That makes $18.00 with the
sale. Then she got another 10% off with her discount card. 10% of $18.00 is $1.80 and when you subtract that from
$18.00 you get $16.20.

Fantastic Footwear: Finally we multiplied 18 times $20.00 to find the discount at Fantastic Footwear. That was $3.60
which subtracted to give us a cost of $16.40.

Then we wondered if it would work the same on other prices so we did all of that for $10.00 and then $30.00. It always
worked out that the price was the least at Shoes for You.