Notes for parents (1).

The purpose of the activity is to help your student to:

- Recognise when advertised specials are incorrect.
- Calculate correct discounts using rates and percentages.

Here is what to do:

Read through the problem together.

What is wrong with the sign?
Look for your student to notice that the price of 2 for $5.00 is equivalent to 1 sachet for $2.50. Since the normal unit price is $2.40 per sachet the special is dearer than the usual price.

What should the sign say?
If the normal unit price is $2.40 and the special saves $2.20 then the normal price is $5.00 + $2.20 = $7.20.

How many sachets can usually be bought for $7.20?
Since $7.20 ÷ $2.40 = 3 the special should be 3 for $5.

What is the percentage discount?

The percentage is an equivalent fraction to $5.00/$7.20. Using a calculator, 5 ÷ 7.2 = 0.6944... which is 69.44...% or about 70%. Therefore, the discount is 100 – 70 = 30% or 30.55...% if your student wants to be exact.

Points to note

Two sachets for $5.00 is an example of a rate. A rate is a multiplicative relationship between two measures with different units. The units in this case are sachets and dollars.

Rates can be scaled up and down by applying the same multiplier to both measures. In the ratio table below 'two sachets per five dollars' is scaled in various ways. Note that 'per' means 'for every.'

Sachets	Dollars
2	5
4	10
6	15
8	20

Notes for parents (2). Activity next page.

The multiplier between the measures is called the unit rate. If can be found by dividing one measure by the other. There are two possible unit rates depending on which measure is divided by the other.

$^2/_5$ of a sachet per dollar

| Sachets	Dollars
2	5

$2.50 per sachet

In this problem the normal unit rate is $2.40 per sachet. A unit rate can be scaled using a multiplier. At $2.40 per sachet what should three sachets cost.

Sachets	Dollars
1	$2.40
3	$7.20

x3 ... x3

The percentage discount in this problem is an example of a part-whole relationship. The normal price $7.20 makes up the whole and $5.00 is treated like a part of it. Displayed as a pie chart the relative size of the parts look like this:

The percentages are equivalent fractions to $5.00/$7.20 and $2.20/$7.20 .
For example 500/720 = 50/72 = 25/36 ≈ 69/100.

$2.20, 31%

$5.00, 69%

☐ Special price ☐ Savings
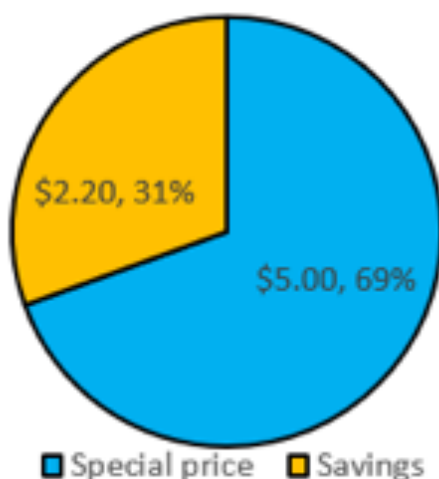
You visit AniMals petstore to buy some cat food.
They have Nature's Own on special.

Something is not right.

What is it?
What should the sign read so the petfood is on the correct special?

What is the purr-centage discount?