

Show Me the Money *With Percentages*

One of the reasons The Conversions are going to be successful is that the group understands how to use a budget to manage its money. Bailey, the lead singer, is in charge of the band's budget. Using percentages helps her keep track of how much money is coming in (*income*) and how much money is being spent (*expenses*). Fill in the budget chart below and answer the questions to see how financially successful the band is. Use the Work Tips to help you with your answers.

WORK THE MATH

1. Calculate the percentage for each income and expense category in the chart below. Then convert the percentages to decimals and fractions to complete the chart. (Tip: You can think of income amounts as *positive* values and expense amounts as *negative* values.)

The Band's Average Monthly Budget

INCOME	Per Month	Percentage	Decimal	Fraction
Shows:	\$250			
CD Sales:	\$100			
T-Shirt Sales:	\$50			
Total:	\$400			

EXPENSES	Per Month	Percentage	Decimal	Fraction
Rehearsal Room:	-\$100			
Equipment and Insurance:	-\$60			
Touring Van (gas/repairs):	-\$65			
Publicity (posters, etc.):	-\$25			
Total:	-\$250			

2. What part of the band's income is profit? (Hint: Profit equals income minus expenses.) Express profit as a percentage, decimal, and fraction.
3. The band donates 25% of its profits to its favorite charity: animal rescue. They put the remaining 75% into a savings account. How much money is the band currently giving to charity? How much does the band put into savings each month?
4. One month, the band's income changed so that 37.5% of its income came from shows and 25% came from CD sales. Assuming total income stayed the same, what fraction of the band's income came from t-shirt sales that month? Also express the answer as a decimal.
5. Another month, the band played more concerts than usual right after the release of a new CD. If the band's income from concerts was \$400 that month, what is the percentage increase in concert income? (Hint: To calculate percentage increase, divide the increase in income by the amount of income before the increase.)



WORK TIPS

■ To convert a percentage to a decimal: Since percentages are in the hundredths place, divide the percentage by 100, which is the equivalent of moving the decimal point two places to the left.

■ To convert a percentage to a fraction: Put the percentage over a denominator of 100 and simplify the fraction.

■ Some percentages require a repeater bar over the decimal. For example: $\frac{1}{3} = 33.\bar{3}\%$

BONUS: At Ralph's insistence, the band started selling pizza-themed socks at its concerts. In one month, they sold a total of one pair for \$2. Total band income that month was \$400. Ralph was pleased to announce that sock sales now amounted to 5% of band income. Do you agree with Ralph? Explain your answer.