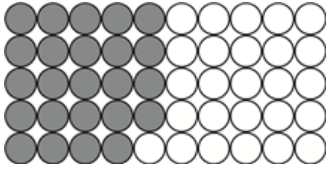


Possible Solutions

The following illustration shows how many students in 6th grade passed a recent exam.



What fraction of students passed the exam? What percent of students passed the exam?

Possible Solution 1

- To solve this problem, students will need to determine the number of students who passed (shaded circles) out of the total number of circles.
- In this case, there are 24 shaded circles out of 50 total circles.
- The fraction who passed would be represented as $\frac{24}{50}$ which could then be reduced to lowest terms by finding the greatest common factor for these two numbers.
- The greatest common factor between the numbers is 2, so students would divide both the numerator and denominator by 2. The result would be $\frac{12}{25}$.
- To find the percent of students who passed, there are 2 choices. Students can either use the fraction they just determined (in lowest terms), or the original amount as shown by the illustration. Both will elicit the same answer.
- If using the reduced fraction above, students would convert to a denominator of 100 as shown below.

$$\frac{12}{25} = \frac{?}{100}$$

- Since $25 \times 4 = 100$, students would apply that conversion to the numerator as well. So, $12 \times 4 = 48$ would result in a fractional amount of $\frac{48}{100}$. This is easily converted to 48% because the denominator is already 100.
- If using the original illustration and fractional amount, students would take $\frac{24}{50}$ and apply the same concept as above.
- $\frac{24}{50} = \frac{?}{100}$ Since $50 \times 2 = 100$, students would apply that conversion to the numerator as well.
- $24 \times 2 = 48$ would result in a fractional amount of $\frac{48}{100}$. This is easily converted to 48% because the denominator is already 100.