Fractions to Percentages

7a. Marie says,



I scored 29/40 on the first test and 19/35 on the second test. I scored 65% altogether.

Is she correct? Convince me.

GD

R

Fractions to Percentages

7b. Ray says,



I scored 19/20 on the first test and 9/15 on the second. I scored 85% altogether.

Is he correct? Convince me.

GD

R

8a. In this diagram, each shaded part is $\frac{3}{15}$ of the area of the rectangle.

The two white parts are equal.



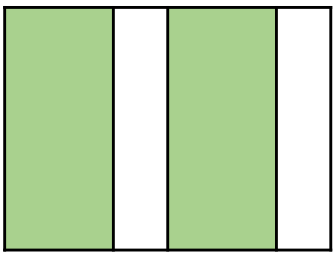
What percentage is one of the white areas?

GD

PS

8b. In this diagram, each shaded part is $\frac{9}{30}$ of the area of the square.

The two white parts are equal.



What percentage is one of the white areas?

GD

PS

9a. Issa has converted a fraction into a percentage.
He says,



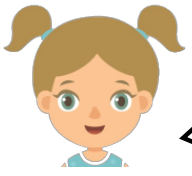
My numerator contains a 2 and my denominator contains a 3. My percentage is equal to or >60%.

What could his fraction and percentage combinations be? Find four examples each with a different denominator.

GD

PS

9b. Aimee has converted a fraction into a percentage.
She says,



My denominator contains a 4 and my numerator contains a 1. My percentage is <45%.

What could her fraction and percentage combinations be? Find four examples each with a different denominator.

GD

PS

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Reasoning and Problem Solving Fractions to Percentages

Developing

1a. Archie is incorrect. 1% is not $\frac{1}{10}$. 1% is $\frac{1}{100}$ and $\frac{1}{10}$ is 10%.

2a. 40%

3a. $\frac{5}{10}$ and 50%; $\frac{7}{10}$ and 70%;

$\frac{9}{10}$ and 90%

Expected

4a. Millen is incorrect. 25% is not $\frac{1}{25}$. 25% is $\frac{1}{4}$ and $\frac{1}{25}$ is 4%.

5a. 40%

6a. Various answers, for example:

$\frac{15}{20}$ and 75%, $\frac{18}{20}$ and 90%;

$\frac{30}{50}$ and 60%, $\frac{48}{50}$ and 96%

Greater Depth

7a. Marie is incorrect. She scored 48/75 in total which equals 64%.

8a. 30%

9a. Various answers, for example:

$\frac{21}{35}$ and 60%, $\frac{21}{30}$ and 70%,

$\frac{24}{32}$ and 75%, $\frac{27}{36}$ and 75%

Reasoning and Problem Solving Fractions to Percentages

Developing

1b. Annabelle is correct because $\frac{20}{100}$ is equal to 20%, as percent is out of 100.

2b. 30%

3b. Seb's possible combinations are:

$\frac{16}{100}$ and 16%, $\frac{17}{100}$ and 17%, $\frac{18}{100}$ and 18%, $\frac{19}{100}$ and 19%

Expected

4b. Joey is correct because $\frac{1}{20}$ is equal to $\frac{5}{100}$, which is 5%, as percent is out of 100.

5b. 60%

6b. Various answers, for example:

$\frac{6}{20}$ and 30%, $\frac{10}{20}$ and 50%;

$\frac{8}{25}$ and 32%, $\frac{14}{25}$ and 56%

Greater Depth

7b. Ray is incorrect. He scored 28/35 in total which equals 80%.

8b. 20%

9b. Various answers, for example:

$\frac{11}{44}$ and 25%, $\frac{12}{48}$ and 25%,

$\frac{12}{40}$ and 30%, $\frac{16}{40}$ and 40%

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