

Reasoning and Problem Solving Equivalent FDP

Developing

1a. No, there will be 75% left which is equivalent to 0.75 and $\frac{3}{4}$.

2a. Kim: $50\% = 0.5 = \frac{1}{2}$. Jane: $\frac{7}{10} = 70\% = 0.7$. Lucy: $0.6 = 60\% = \frac{6}{10}$. Jane ate the most.

3a. Morgan is correct. 80 out of 100 squares are shaded, which is equivalent to 80%, 0.8 or $\frac{8}{10}$.

Expected

4a. No, there will be 40% left which is equivalent to 0.4 and $\frac{2}{5}$.

5a. Joshua: $75\% = 0.75 = \frac{3}{4}$. Briony: $\frac{3}{5} = 0.6 = 60\%$. Verity: $0.8 = 80\% = \frac{4}{5}$. Verity scored the highest.

6a. Mia and Jasmine are both correct. 20 of the 50 squares are shaded, which is equivalent to 40%, $\frac{2}{5}$ and 0.4.

Greater Depth

7a. Yes, there will be $\frac{17}{20}$ left which is equivalent to 0.85 and 85%. This is because $\frac{6}{40} = \frac{3}{20}$.

8a. Jack: $60\% = 0.6$ and $\frac{3}{5}$. Scarlett: $\frac{26}{40} = \frac{13}{20}$, 0.65 and 65%. Isaac: $0.65 = 65\%$ and $\frac{13}{20}$. Scarlett and Isaac both scored the highest.

9a. Adam is correct. 30 out of 80 squares are shaded, which is equivalent to 0.375, 37.5% and $\frac{3}{8}$.

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Developing

1b. Yes, there will be $\frac{7}{10}$ left which is equivalent to 0.7 and 70%.

2b. Nile: $75\% = 0.75 = \frac{3}{4}$. Max: $\frac{3}{4} = 75\% = 0.75$. James: $0.7 = 70\% = \frac{7}{10}$. Nile and Max both ate the most.

3b. Kelly is correct. 20 out of 100 squares are shaded, which is equivalent to 20%, 0.2 or $\frac{2}{10}$.

Expected

4b. Yes, there will be 37.5% left which is equivalent to 37.5 and $\frac{3}{8}$.

5b. Will: $60\% = 0.6 = \frac{3}{5}$. Kate: $\frac{5}{8} = 62.5\% = 0.625$. Holly: $0.6 = 60\% = \frac{3}{5}$. Kate scored the highest.

6b. Connie is correct. 12.5 out of 100 squares are shaded, which is equivalent to 12.5%, $\frac{1}{8}$ and 0.125.

Greater Depth

7b. No, there will be $\frac{1}{8}$ left which is equivalent to 0.125 and 12.5%. This is because $\frac{14}{16} = \frac{7}{8}$.

8b. Megan: $85\% = 0.85$ and $\frac{17}{20}$. Nate: $\frac{14}{16} = \frac{7}{8}$, 0.875 and 87.5%. Mo: $0.875 = 87.5\%$ and $\frac{7}{8}$. Nate and Mo both scored the highest.

9b. Ellie and Hafsa are both correct. 18 out of 30 squares are shaded, which is equivalent to $\frac{9}{15}$ ($\frac{3}{5}$ when simplified), 60% and 0.6.