1)

Fraction	Method Used	Decimal
$\frac{13}{20}$	$\frac{13}{20} \times \frac{5}{5} = \frac{65}{100} = 0.65$	0.65
$\frac{3}{20}$	$\frac{3}{20} \times \frac{5}{5} = \frac{15}{100} = 0.15$	0.15
$\frac{4}{25}$	$\frac{4}{25} \times \frac{4}{4} = \frac{16}{100} = 0.16$	0.16
$\frac{3}{5}$	$\frac{3}{5} \times \frac{2}{2} = \frac{6}{10} = 0.6$	0.6
$\frac{3}{4}$	$\frac{3}{4} \times \frac{25}{25} = \frac{75}{100} = 0.75$	0.75
$\frac{31}{50}$	$\frac{31}{50} \times \frac{2}{2} = \frac{62}{100} = 0.62$	0.1 0.1 0.1 0.01 0.1 0.1 0.1 0.01

2) a) 0.16

b) 0.6, 0.62, 0.65, 0.75

c) 0.15

d) 0.6 and 0.15

1) Monika could halve $\frac{24}{40}$ to give her the fraction $\frac{12}{20}$. She would then have a denominator that will make 100 when multiplied by 5.

$\frac{12}{20} \times \frac{5}{5} = \frac{60}{100}$ or $\frac{6}{60}$ or 0.6

Another effective strategy for Monika to use would be to find a common factor of the numerator and the denominator – a number that will divide into both with no remainder. In this example, 4 will divide into 24 and 40 so Monika can simplify the fraction in order to get $\frac{6}{10}$ or 0.6.

2)

a) This is true. $\frac{40}{50} = \frac{80}{100} = 0.8$

b) We can see that this is false as 0.5 is equivalent to $\frac{1}{2}$. For a fraction to be equivalent to $\frac{1}{2}$, the numerator would need to be half of the denominator and that is not true of $\frac{100}{250}$. ($\frac{100}{250} = 0.4$)

c) $\frac{6}{8} = \frac{3}{4}$ and $\frac{16}{20} = \frac{80}{100}$ or $\frac{8}{10}$
When all of the fractions are converted to decimals, we can see that the statement is true. 0.75 < 0.85 > 0.8

1) $\frac{3}{4}$ (or 0.75) + $\frac{4}{20}$ + 0.05 = 1 $\frac{3}{24} + \frac{300}{500} + 0.275$ (or $\frac{11}{40}$) = 1

2) A variety of answers are possible. One example answer is shown for each number statement.

a) $\frac{5}{20} + \frac{50}{200} + 0.5 = 1$

b) $\frac{10}{25} + \frac{5}{50} + 0.2 = 0.7$

c) $\frac{6}{8} + \frac{5}{500} + 0.1 = 0.86$