MATH DOESN'T SUCK

Solution Guide – Chapter 4

Introduction to Fractions

Doing the Math from p. 40

2) Well, my friend is only interested in black dresses, and I only have 2 black dresses. The total number of dresses I have is 5. So she'll be interested in $\frac{2}{5}$ of my dresses.

Answer: $\mathbf{\frac{2}{5}}$

3) The fractions of buddies online is just the number of buddies online over the total number of buddies you have. So just put 7 over 73: $\frac{7}{73}$ of my buddies are online.

Answer: $\mathbf{\frac{7}{73}}$

4) The fraction of sunny days will be the number of sunny days over the total number of days in that week. The total number of days in a week is 7. Since it rained 3 days, it must have been sunny the other 4 days. That means the fraction of days that is was sunny last week is $\frac{4}{7}$.

Answer: $\mathbf{\frac{4}{7}}$

Doing the Math from p. 43-4

****Please note that there is a typo in the book on p.44. In "step 1" of working out the solution, when we're converting $\frac{9}{2}$ into a mixed number, it should say that there are *4* whole pizzas plus 1 extra slice. The final answer, $4\frac{1}{2}$, is correct. ****

2) To convert $\frac{8}{3}$ into a mixed number, first tip it over and divide (You could also just remember that $\frac{8}{3}$ is the same as "$8 \div 3$" and proceed with the division; whatever makes more sense to you).

So $\frac{8}{3} \rightarrow 3\overline{)8}^{2R2}$, and we get 2 whole pizzas with a remainder of 2 slices, in other words: $2\frac{2}{3}$.

Answer: $\frac{8}{3} = \mathbf{2\frac{2}{3}}$

3) Tip over $\frac{6}{5}$ and divide $\rightarrow 5\overline{)6}^{1R1}$. We get 1 whole pizza and 1 slice remaining, in other words: $1\frac{1}{5}$.

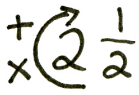
Answer: $\frac{6}{5} = \mathbf{1\frac{1}{5}}$

4) Tip over $\frac{13}{4}$ and divide $\rightarrow 4\overline{)13}^{3R1}$. We get 3 whole pizzas and 1 slice remaining, in other words: $3\frac{1}{4}$.

Answer: $\frac{13}{4} = \mathbf{3\frac{1}{4}}$.

Doing the Math from p. 46

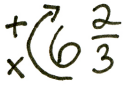
2) The MAD face method for $2\frac{1}{2}$: First draw the "MAD face" on the mixed number.



M: multiply $2 \times 2 = 4$, then we
A: add $4 + 1 = 5$, and now we put that 5 on top of the
D: denominator, which is 2: $\frac{5}{2}$.

Answer: $2\frac{1}{2} = \mathbf{\frac{5}{2}}$

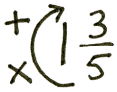
3) First draw the "MAD face" on the mixed number:



M: multiply $3 \times 6 = 18$ and
A: add $18 + 2 = 20$. Now we put the 20 on top of the
D: denominator, which is 3: $\frac{20}{3}$.

Answer: $6\frac{2}{3} = \mathbf{\frac{20}{3}}$.

4) First draw the "MAD face" on the mixed number:



M: multiply $5 \times 1 = 5$ and
A: add $5 + 3 = 8$. Now we put the 8 on top of the
D: denominator, which is 5: $\frac{8}{5}$.

Answer: $1\frac{3}{5} = \mathbf{\frac{8}{5}}$

Doing the Math from p. 48

2. These are pretty easy; anytime you see a fraction with a "1" on the bottom, all you have to do is take the numerator, and that's your answer: $\frac{6}{1} = 6$

3. $\frac{1}{1} = 1$

4. $\frac{141}{1} = 141$