Math 01, Homework 4 on Sections 3.1 - 3.5

Write all your working out and answers on a separate sheet. These first ten questions are 2 points each and **their solutions are on page 2**. Check that you get the same answers. If you don't, then look at your notes or the book or ask me. Only do the last eight questions when you are sure you understand the first ten.

It is very important that you show clearly any work you had to do to get your answers. Just writing the answer down with no work shown is not enough.

(1) Simplify: **(a)** $\dfrac{0}{5}$, **(b)** $\dfrac{6}{6}$, **(c)** $\dfrac{8}{1}$

(2) Convert to a mixed number: $\dfrac{7}{3}$

(3) Convert to a mixed number: $\dfrac{101}{9}$

(4) Five people share nine small pizzas fairly. Used mixed numbers to say how much pizza each gets.

(5) Convert to an improper fraction: $5\dfrac{3}{7}$

(6) Calculate: **(a)** $\dfrac{2}{3} \cdot \dfrac{5}{3}$ **(b)** $\dfrac{1}{5} \cdot \dfrac{3}{2} \cdot 7$

(7) Compute one half of one quarter.

(8) Write four different fractions equivalent to $\dfrac{1}{4}$

(9) Reduce to lowest terms: $\dfrac{6}{36}$

(10) Reduce to lowest terms: $\dfrac{26}{39}$

These next eight questions are 2 points each. Show clearly all your working out and reasoning.

(11) Simplify: **(a)** $\dfrac{9}{9}$, **(b)** $\dfrac{0}{2}$, **(c)** $\dfrac{3}{1}$

(12) Convert to a mixed number: $\dfrac{101}{7}$

(13) Four people share 13 chocolate bars fairly. Used mixed numbers to say how many bars each gets.

(14) Convert to an improper fraction: $4\frac{3}{10}$

(15) Calculate: **(a)** $\frac{2}{5} \cdot \frac{3}{7}$ **(b)** $\frac{4}{7} \cdot \frac{2}{3} \cdot 5$

(16) Compute one quarter of one third.

(17) Write four different fractions equivalent to $\frac{2}{5}$

(18) Reduce to lowest terms: $\frac{20}{28}$

Answers to questions (1)-(10):

(1)   **(a)** 0,   **(b)** 1,   **(c)** 8

(2) $2\frac{1}{3}$

(3) $11\frac{2}{9}$

(4) $\frac{9}{5} = 1\frac{4}{5}$, so each person gets $1\frac{4}{5}$ pizzas.

(5) $\frac{38}{7}$

(6)   **(a)** $\frac{10}{9}$ **(b)** $\frac{21}{10}$

(7) $\frac{1}{2} \cdot \frac{1}{4} = \frac{1}{8}$, so the answer is one eighth.

(8) Examples of four different fractions equivalent to $\frac{1}{4}$ are: $\frac{2}{8}$, $\frac{3}{12}$, $\frac{10}{40}$, $\frac{200}{800}$

(9) $\frac{1}{6}$

(10) $\frac{2}{3}$