Math 01, Homework 4 on Sections 3.1 - 3.5

Write all your working out and answers on your own notepaper - no need to write the questions. Please use lots of space.

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. All 18 questions are worth 2 points each.

Do these first 10 questions and *check that your answers match the solutions on page 2.* If you don't get the same answers then try to fix them by looking at your notes or the book or asking me. Only do the last eight questions when you are sure you understand the first ten.

(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: $\dfrac{26}{39}$

Eight more questions[1]. Show clearly all your working out and reasoning.

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

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[1]questions continue on page 2

(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: $4\dfrac{3}{10}$

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

(16) Compute one quarter of one third.

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

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

Answers to questions (1)-(10):

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

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

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

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

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

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

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

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

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

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