Math 05, Homework 1 on Sections 0.1, 0.2, 0.3, 0.4
due Wed, Sept 9 at the start of class.

Write all your answers on a separate sheet. These first ten questions are 1 point each. It is very important that you show clearly any work you had to do to get the answer. Check your answers match the answers below.

(1) Simplify: $\dfrac{39}{52}$

(2) Multiply: $\dfrac{5}{6} \times \dfrac{4}{7}$

(3) Divide: $\dfrac{3}{7} \div \dfrac{1}{2}$

(4) Add: $\dfrac{1}{10} + \dfrac{4}{15}$

(5) Subtract: $\dfrac{7}{8} - \dfrac{1}{12}$

(6) How many books, each of width $3/5$ inches, can fit in a bookshelf of width 30 inches?

(7) Calculate: **(a)** $-(-8)$, **(b)** $-|-6|$

(8) Calculate: **(a)** $9 - 3$, **(b)** $-5 - 8$, **(c)** $-2 + 6$

(9) Multiply: **(a)** $(-7)(8)$, **(b)** $(-8)(-8)$

(10) Find: **(a)** $-4(-5 - 3)$, **(b)** $24 \div (-3)$

These next eight questions are 3 points each. Show clearly all your working out and reasoning.

(11) Simplify: $\dfrac{45}{54}$

(12) Multiply: $\dfrac{4}{5} \times \dfrac{3}{8}$

(13) Divide: $\dfrac{3}{5} \div \dfrac{3}{4}$

(14) Add: $\dfrac{1}{10} + \dfrac{7}{8}$

(15) Subtract: $\dfrac{5}{8} - \dfrac{1}{4}$

(16) Calculate: **(a)** $-9 - 3$,   **(b)** $-5 + 8$

(17) Multiply: **(a)** $(-6)(7)$,   **(b)** $(-3)(-9)$

(18) Find: **(a)** $-5(-4 - 3)$,   **(b)** $-20 \div (-5)$

Answers to questions (1)-(10):

(1) $\dfrac{3}{4}$

(2) $\dfrac{10}{21}$

(3) $\dfrac{6}{7}$

(4) $\dfrac{11}{30}$

(5) $\dfrac{19}{24}$

(6) $30 \div 3/5 = 50$, so 50 books will fit on the shelf

(7)   **(a)** 8,   **(b)** -6

(8)   **(a)** 6,   **(b)** -13,   **(c)** 4

(9)   **(a)** -56,   **(b)** 64

(10)   **(a)** 32,   **(b)** -8