Math 05, Homework 1 on Sections 1.1 - 2.3
Hand in by Wed, Sept 7 at the start of class.

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: $\dfrac{39}{52}$

(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) Find the magnitude of: **(a)** -8, **(b)** 6, **(c)** 0

(8) Calculate: **(a)** $12 + 9$, **(b)** $12 + (-9)$, **(c)** $(-12) + (-9)$

(9) Calculate: **(a)** $7 + (-13)$, **(b)** $-8 - 6$, **(c)** $-4 - (-11)$

(10) Find: $\left(-\dfrac{3}{10}\right) + \left(-\dfrac{3}{4}\right)$

These next eight questions are 2 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)** $13 + (-13)$, **(b)** $(-6) + 7$, **(c)** $(-4) + (-8)$

(17) Calculate: **(a)** $1 + (-9)$, **(b)** $-3 - 19$, **(c)** $-11 - (-5)$

(18) Find: $\dfrac{1}{6} - \dfrac{8}{9}$

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, **(c)** 0

(8) **(a)** 21, **(b)** 3, **(c)** -21

(9) **(a)** -6, **(b)** -14, **(c)** 7

(10) $-\dfrac{21}{20}$

If you want more questions to practice on, do the exercises in the textbook from Sections 1.1 - 2.3. Check your solutions are the same as those given at the back of the book, starting on page 265.