

**Math 05, Homework 1 on Sections 1.1 - 2.3**  
**Hand in by Wed, Feb 10 at the start of class.**

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Write all your working out and answers on a separate sheet. It is very important that you show clearly any work you had to do to get the answer. These first ten questions are 2 points each and **the answers are on page 2.**

- (1) Simplify:  $\frac{39}{52}$
- (2) Multiply:  $\frac{5}{6} \times \frac{4}{7}$
- (3) Divide:  $\frac{3}{7} \div \frac{1}{2}$
- (4) Add:  $\frac{1}{10} + \frac{4}{15}$
- (5) Subtract:  $\frac{7}{8} - \frac{1}{12}$
- (6) How many books, each of width  $\frac{3}{5}$  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:  $\left(-\frac{3}{10}\right) + \left(-\frac{3}{4}\right)$
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These next eight questions are 2 points each. Show clearly all your working out and reasoning.

- (11) Simplify:  $\frac{45}{54}$
- (12) Multiply:  $\frac{4}{5} \times \frac{3}{8}$
- (13) Divide:  $\frac{3}{5} \div \frac{3}{4}$
- (14) Add:  $\frac{1}{10} + \frac{7}{8}$

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

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

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

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

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**Answers to questions (1)-(10):**

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

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

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

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

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

(6)  $30 \div \frac{3}{5} = 50$ , 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)  $-\frac{21}{20}$