

Math 05, Homework 1 on Sections 1.1 - 2.3

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 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.

- (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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Eight more questions¹. Show clearly all your working out and reasoning.

- (11) Simplify: $\frac{45}{54}$
- (12) Multiply: $\frac{4}{5} \times \frac{3}{8}$
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¹questions continue on page 2

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

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

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.