

Math Help Sheet: Showing all Your Work

When taking exams, please show all the steps of your solution for each problem. That way your instructor can see if you truly understand how to solve the problem. If the problem gives you difficulty, your instructor can more easily pinpoint where you need help. If the space provided on the exam itself is not sufficient, attach additional sheets of paper. Be sure to write your name and student number at the top of any additional sheets you submit.

Remember, your work is your proof that you have mastered the subject material. If you make a mistake, but you have shown mastery of the material through the work you have on the paper, your instructor can give you partial credit. On the other hand, if you make a simple mistake, but you have not shown any work, your instructor will have to take off full points for that problem. Showing all your work may be time-consuming, but the points it can save you are worth the extra time and effort.

Showing well-organized work will benefit you. Below are examples of how showing your work will result in a higher score on your exam than not showing your work.

Example 1

a. What is 20% of 6790?

$$.20 \times 6790 = 1358$$

Answer: 1358 is 20% of 6790

Full points will be awarded for a correct answer with work shown.

b. What is 20% of 6790?

Answer: 1358 is 20% of 6790

Partial points will be awarded for a correct answer with no work.

Example 2

a. $\frac{7}{8} \div \frac{5}{6} = \frac{7}{18} \times \frac{6}{5} = \frac{7}{3} \times \frac{1}{5} = \frac{7}{15}$

Full points will be awarded for a correct answer with work shown.

b. $\frac{7}{8} \div \frac{5}{6} = \frac{7}{15}$

Partial points will be awarded for a correct answer with no work.

Example 3

- a. Find the final amount on \$5000 invested at 5% annual interest for 5 years.

$$\$5000 \times .05 \times 5 = \$1250$$

$$\$5000 + \$1250 = \$6250$$

Answer: The final amount is \$6250.

Full points will be awarded for a correct answer with work shown.

- b. Find the final amount on \$5000 invested at 5% annual interest for 5 years.

$$\$5000 \times .05 \times 5 = \$1250$$

Answer: The final amount is \$6250.

Partial points will be awarded for a correct answer with some of the work.

Example 4

- a. Solve for x. Round the answer to the nearest tenth.

$$12x - 15 = 50 - 7x$$

$$12x + 7x = 50 + 15$$

$$19x = 65$$

$$x = 65/19 = 3.42105$$

$$x = 3.4 \text{ to the nearest tenth}$$

Full points will be awarded for a correct answer with work shown.

- b. Solve for x. Round the answer to the nearest tenth.

$$12x - 15 = 50 - 7x$$

$$12x + 7x = 50 + 15$$

$$20x = 65$$

$$x = 3.3 \text{ to the nearest tenth}$$

Partial points will be awarded for a correct answer with work shown. An addition error was made in the second to last step.

- c. Solve for x. Round the answer to the nearest tenth.

$$12x - 15 = 50 - 7x$$

$$x = 3.5$$

This answer is close, but no points will be awarded. A simple calculation error may have been made along the way, or a rounding error may have been made, but with no work shown, no points will be awarded.

Another way to determine how to show your work is to follow the examples in your textbook. If your answer is correct and you have shown your work as in the textbook examples, you will receive full credit.