February 24, 2022 Mr. Rasmusen

Answer Examples for Homework 8.4

I’d like to teach you how to write homework and test answers to show your work. This handout gives examples of how to answer. Follow these examples. If you don’t write out the answer fully, you will have to rewrite your homework. Don’t be afraid to use a lot of paper. Also, answer one question at a time. Don’t write down a list of question numbers first like this:

1.

3.

5.

7.

If you do that, you might not leave enough space to show your work.

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Start by putting **the date** at the top of your homework, as well as the title and your name. I haven’t required you to put the date before, but I want you to start. It can be the date you do the homework or the date you start it, or the date you hand it in.

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Question 1 asks what is special about a parallelogram. Here is a similar question, as an example.

Example question: Explain what is special about a trapezoid.

1A. What is special about a trapezoid is that it is a four-sided figure with at least two sides parallel.

Examples of bad answers.

1A. At least two sides are parallel.

1A. It has four sides and two are parallel.

Notice that the second bad answer does describe a trapezoid. The answer just says “It”, though, without saying that what is being described is a trapezoid.

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Questions 3, 5, and 7 ask you to find perimeters. Here is an example of a good answer to question 6 (which is not part of your homework).

6. The perimeter of this figure is P = 12.6in + 14.7in + 24.8in + 11.9in, so P = 27.3in + 36.7in, so the answer is P = 64in.

I did the addition in my head in two steps, so that is how I wrote my answer to show my work. If you did it as a sum, you’d write as part of your answer,

12.6

14.7

24.8

11.9

64.0

Example of bad answers:

6. 64

6. 64in

6. I added up the sides and they equal 64 inches.

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Questions 9, 11, and 13 ask you find areas. Here is an example of a good answer to question 12.

12. The area is found from Area = ½ \*height\*(short base + long base), because this is a trapezoid.

Height = 8in. Short base = 9 ¼ in. Long base = 15 ¾ in.

Thus, Area = ½ \* 8in \* (9 ¼ in + 15 ¾ in) = 4in\* 25in = 100 square inches.

Examples of bad answers:

12. 100.

12. It’s a trapezoid, so the area is 100 square inches.

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Question 15 asks you to find two errors in an answer. Here is an example of a good answer to question 16.

16. One error in the student answer is that the trapezoid area formula used here needs 22ft as the long base, but the answer uses 12ft. A second error is that the answer is given in feet, but it should be in ft2.

A correct solution is

The area is found from Area = ½ \*height\*(short base + long base), because this is a trapezoid.

Height = 11.6ft. Short base = 12ft. Long base = 22ft.

Thus, Area = ½ \*11.6ft \* (12ft+22ft ) = 197.2 ft2 using my calculator.

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Questions 17 and 19 are word problems. Here is an example of a good answer to question 20.

18. To find the total area of all seven floors, we need to multiply the area of one floor by seven.

Each floor is a parallelogram with height=22m and base =88m, so the area formula is (22m)(88m) = 1,936 square meters using my calculator. Multiplying that by 7, we get 13,552 square meters, which is the answer.

A bad answer:

18. 22\*88= 1936. Times 7. 13,552 square meters.

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Questions 21 and 23 ask you to find areas. Here is an example of a good answer to question 22.

22. The figure here is a trapezoid on top of another trapezoid. The top one’s area is found from

Area = .5\* height (short base + long base) = .5 (46.2cm)\*(87.3cm+61.7cm) = 3,441.9cm2.

The bottom one uses the same formula, but Area = .5(32)(92.3+ 61.7) = 2,464cm2.

Adding these together, we get the answer, 5,905cm2.

I used a calculator.