CS 200: Faking It
Lecture Notes - Instructor Version*

Kyle Burke

July 8, 2019

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Warning!

This document is intended for *instructor use only*. It contains answers to in-class questions and solutions to exercises that are not appropriate for students to have. Please do not distribute these notes.

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Welcome to the class!

⟨ Go over Syllabus. ⟩

Squares are really awesome objects. I love them!

Q:	Does anyone else love squares?

Q:	How many sides are in a square?
A:	Four.

Q:	What's another kind of shape with four sides?
A:	All okay: Rectangle, Rhombus, Parallelogram, Quadrillateral, Kite.

Def: <u>Square</u> A *square* is a polygon with four right angles and four sides of equal length.

<u>**Example: Square**</u>
The following points are corners of a square: $(0,0)$, $(2,0)$, $(0,2)$, $(2,2)$.

The following code could be used to create a Square object in Java:

```
int sideLength = 4;
Square square = new Square(sideLength);
```

Exercises for 0.0

exercise-squaresQ

Exercise 0

How many sides does a square have?
(Answer 0.0.0subsubsection.0.0.0 in Appendix)

exercise-harderSquaresQ

Exercise 1

If one side of a square has length 1, what is the total perimeter of that square?
(Answer 0.0.1subsubsection.0.0.1 in Appendix)

exercise-X

Exercise 2

hi
(Answer: 0.0.2subsubsection.0.0.2 in Appendix)
↭ *HOMEWORK* : Chapter 0, Section 0, Problems: 0, 3, and 5. ↭

0.1 Acknowledgements

Thanks to all the students I've had who have put up with annoying versions of these notes. Sorry! Thanks for persisting through it!

Thanks also to the authors of the LaTeX exercise package[1]. This made it possible for me to create the commands that add exercises. Extremely helpful!

I got lots of help from the TeX stack exchange. Thanks to all the people who responded to my questions about using environments inside a phantom command[2] and about how to use optional parameters in commands[3].

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[1]https://www.ctan.org/tex-archive/macros/latex/contrib/exercise
[2]http://tex.stackexchange.com/questions/229411/can-i-use-phantom-to-hide-a-latex-environment-itemize
[3]http://tex.stackexchange.com/questions/84595/latex-optional-arguments-with-square-brackets

A   Answers to Exercises

`exercise-squaresQ-Answer`

Answer of exercise 0.0.0

Question:
How many sides does a square have?
Answer:
A square has four sides.

`exercise-harderSquaresQ-Answer`

Answer of exercise 0.0.1

Question:
If one side of a square has length 1, what is the total perimeter of that square?
Answer:

$$
\begin{aligned}
\text{Perimeter} &= 1 + 1 + 1 + 1 \\
&= 2 + 1 + 1 \\
&= 3 + 1 \\
&= 4
\end{aligned}
$$

The total perimeter of the square is 4.

`exercise-yo-Answer`

Answer of exercise ??

bye