



Name _____

Teacher/Hour _____

SOLO Computer Component Quest

Part of learning about computers includes learning to design and build a computer. Fortunately, we can shop for retail components that make this process relatively easy! Using the worksheet below, select a scenario from the attached sheet; then go to <http://pcpartpicker.com/list/> and select components to build a computer. Justify how your component choices meet the scenario. Give the part number of the component so that it can be easily examined later. If you think that there are other necessary components, list them on the blank spaces provided.

I selected scenario number _____ Final Price _____

Motherboard Make/Model # _____
Justification for choice

CPU Make/Model # _____
Justification for choice

RAM Make/Model # _____
Justification for choice

Graphics Card Make/Model # _____
Justification for choice

Case

Make/Model # _____

Justification for choice

Hard Disk Drive

Make/Model # _____

Justification for choice

Optical Drive

Make/Model # _____

Justification for choice

Monitor

Make/Model # _____

Justification for choice

Keyboard

Make/Model # _____

Justification for choice

Mouse

Make/Model # _____

Justification for choice

Operating System

Make/Model #

Justification for choice

Make/Model #

Justification for choice

Make/Model #

Justification for choice

Make/Model #

Justification for choice

Make/Model #

Justification for choice

Make/Model #

Justification for choice

The scenarios are given below. Do your best to design a computer that will meet the needs of the user in the scenario that you select. Make the best possible computer (with the fastest processor, the most memory, the most graphics card speed, and the most storage) while staying within budget—get as close as possible without going over.

1. You are an 82-year old grandparent. Your computer will be used primarily to email your children and grandchildren. Budget: \$300
2. You are a working college student. You need a computer so you can write papers, write programming assignments, and maybe if you have some time, play a video game or two. You are looking for an all-purpose machine. Budget: \$1200
3. You are a high school music teacher. You desire a new computer to start your own music studio so you can stop teaching and start your own recording career. You are interested in a computer with a high storage capacity and a state-of-the-art sound card. Budget: \$2200
4. You are an aspiring film director. You are buying a computer to store all of your home movies in hopes of compiling them into the next blockbuster feature-length film. Your machine needs to have a large amount of storage space. Budget: \$1600
5. You work as a low-level employee for a high-profile software company. You have been assigned to experiment with the next operating system that will require a large amount of RAM. Your company has given you \$1600 to invest in a machine that will exploit the current state-of-the-art RAM capabilities. Budget: \$1600
6. You are a NASA scientist working from home. You need the fastest, most solid number-crunching machine you can buy for \$2000. Budget: \$2000
7. You are a professional video game player. While not a lucrative career, your constant practicing while in college is finally paying off! You want the best game-playing machine available within a budget of \$2500. Budget: \$2500