Topic 1: Hardware and Software Cheat Sheet

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Conversions

8 bit	1 Byte	x 8 (->bits)
1024 Bytes	1 KibiByte (KiB)	x 1024 (->Bytes)
1024 KibiBytes	1 MebiByte (MiB)	x 1024^2 (->Bytes)
1024 MebiBytes	1 GibiByte (GiB)	x 1024^3 (->Bytes)
1024 GibiBytes	1 TebiByte (TiB)	x 1024^4 (->Bytes)
4 bit	1 nibble	x 4 (->bits)

transmission speed = file size / time taken
image file size = height in pixles x width in pixles x bit depth(or colour depth)
text file size = number of bits per character x number of characters
sound file size = sample rate x duration x bit depth

Assess performance of digital devices

speed
capacity
portability
bandwidth
power efficiency

Embedded System

Character-istics	Created to perform the task within a certain time frame
	Task specific
	High efficiency
	Works with less power
	High reliablility
	Very Stable
	Minimal or no user interface
	Less expencive
	Small sized
	Hardware is used for security and performance
	Software is used for features
Features and Functions	
Advantages	Portable
	High performance
	Less energy consumption
Disadv-antages	Minimal or no user interface
	No or little expansion capability

Embedded System (cont)

Security features (hardware)

Embedded Systems - programmed hardware devices that run on hardware chips, they are designed to work for single or few specific functions often within a larger system