

# Oxford Revise | OCR Computer Science | Answers

## Chapter 9 File size

Question	Answer						Extra information	Marks	AO / Specification reference
1	<b>File size</b>	<b>4 megabytes</b>	<b>4 kilobytes</b>	<b>4 petabytes</b>	<b>4 gigabytes</b>	<b>4 terabytes</b>	1 mark for each correct row.	1 1 1 1	AO2 1.2.3
	4000 terabytes			✓					
	4000 megabytes				✓				
	4000 gigabytes					✓			
	8000 nibbles		✓						

Question	Answer	Extra information	Marks	AO / Specification reference
2	<p>Image file size = number of pixels x colour depth</p> <p>Number of pixels = <math>480 \times 640 = 307200</math></p> <p>Colour depth = 8</p> <p>File size = <math>307200 \times 8 = 2457600</math> bytes</p> <p style="text-align: center;"><math>= 2457600 \div 1024 = 2400</math> kilobytes</p>	<p>1 mark for each correct line of working up to a maximum of 2.</p> <p>Correct answer.</p> <p>Division by 1000 to give 2457.6 kilobytes or rounded equivalent, would also be acceptable.</p>	<p>1</p> <p>1</p> <p>1</p>	<p>AO2</p> <p>1.2.3</p>
3	<p><math>01010000 = 64 + 16 = 80</math> in denary</p> <p>If 80 represents P, 85 represents U</p>	<p>1 mark for working, for example, the denary equivalent of 0101000.</p> <p>Correct answer.</p>	<p>1</p> <p>1</p>	<p>AO2</p> <p>1.2.4</p>

Question	Answer	Extra information	Marks	AO / Specification reference
4	Lossy compression works by permanently removing data the algorithm considers unnecessary. If a computer program is compressed and some data was permanently deleted from it, the program may not function correctly when it is decompressed, because some of the code may be missing.	1 mark for each correct statement, up to a maximum of 3 marks, explaining why lossy compression is not suitable for compressing a computer program file.	1 1 1	AO2 1.2.5