1. Fill in the bytes of the bitmap file header according the the hexadecimal dump of your bmp file.

oyte	0	1	2	3	4	5	6	7	8	9	Α	В	С	D
use	si	gnature		file	size		reserv	ed1	reser	ved1	file	offset to	pixel a	rray
data														
				<u> </u>			[
	a)	Write the	first tw	o bytes	of the	file in he	exadec	imal fo	rmat.					
	b0	Convert th	nese tw	o bytes	to thei	r ASCII	equiva	lent.						
	- ا	Dind the A	hveton :	! 4b b	:	ila baad	ou 4h o4			£:1a				
•		Find the 4 length, an												
		number. R	tememt	oer to c	onvert	from litt	le-endi	an. Che	eck tha					
	Ĺ	length val	ue corr	espond	s corre	ctly to th	ie lengi	th of the	e file.					
	a)	Find the 4	bytes i	in the b	itmap f	ile head	er that	represe	nts the	<u>.</u>				
		offset of tl	he imag	ge data	pixel a	rray, and	d write	this va	lue as	an 8-				
	L	digit hexa	decima	l numb	er. (Ag	ain, conv	vert fro	m little	e-endia	ın).				
•		Find the s					ite the	value o	f the I	DIB				
		header siz	e as an	8-digit	hexade	ecimal.								
		Convert th												
		it is the co	mect le	ilgui ic	n a vers	SIOII 5 D	ID Hea	uer (uer	lialy 1.	24).				
	_									hexa	decima	ıl	de	nary
•		Find the in						widt	h					
		of the DIE first as an												
		convert to	_					heigh	ıt					
	a)	Find the n	umber	of bits	per pix	<i>el</i> in the	DIB h	eader a	nd wri	te the				
		value first												

value first as a 4 digit hexadecimal number, then converted to denary.

8. a) Find the compression method field of the DIB header and write the value as an 8-digit hexadecimal number.

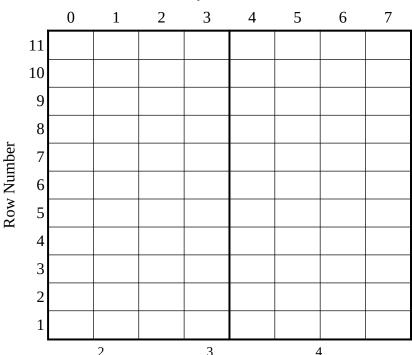
File offset	index	AF	RGB he	Named Color (HTML/CSS)	

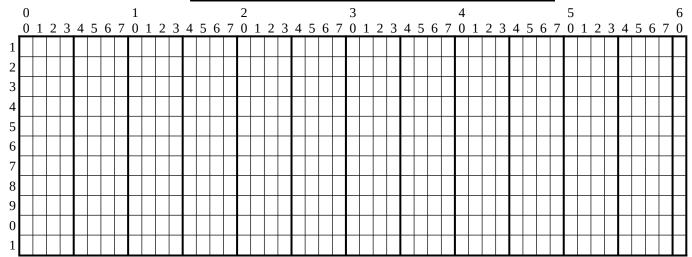
Worksheet: Reading a Bitmap File

Angel.bmp

Address of Leftmost Byte

				Le	ast	Sigi	nific	ant	Nib	ble	of A	Addı	ess			
	0	1	2	3	4	5	6	7	8	9	Α	В	C	D	E	F
0000000	42	4D	EA	00	00	00	00	00	00	00	92	00	00	00	7C	00
0000010	00	00	31	00	00	00	0B	00	00	00	01	00	01	00	00	00
0000020	00	00	58	00	00	00	13	0B	00	00	13	0B	00	00	02	00
0000030	00	00	02	00	00	00	00	F8	00	00	E0	07	00	00	1F	00
0000040	00	00	00	00	00	00	42	47	52	73	00	00	00	00	00	00
0000050	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
0000060	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
0000070	00	00	00	00	00	00	00	00	00	00	02	00	00	00	00	00
0800000	00	00	00	00	00	00	00	00	00	00	80	00	80	00	FF	FF
0000090	00	00	FF	FF	FF	FF	FF	FF	80	00	FF	FF	F1	FF	FF	FF
00000A0	80	00	FF	FF	ΕE	FF	FF	FF	80	00	FΕ	EΒ	ΒE	C 7	1F	F5
00000B0	80	00	FΕ	EΒ	B0	BF	BF	F5	80	00	FΕ	0B	ΑE	83	BF	E0
00000C0	80	00	FΕ	E9	ΑE	BB	BF	F5	80	00	BA	EΑ	70	C7	BB	Α0
00000D0	80	00	D7	5F	FF	FF	BD	75	80	00	EF	BF	FF	FF	3E	F5
00000E0	80	00	FF	FF	FF	FF	FF	FF	80	00						





1. Fill in the bytes of the bitmap file header according the the hexadecimal dump of your bmp file.

byte	0	1	2	3	4	5	6	7	8	9	Α	В	С	D
use	signa	ature		file	size		reser	ved1	reser	ved1	file	offset to	pixel a	rray
data														
2. a) Write the first two bytes of the file in hexadecimal format.														

- b0 Convert these two bytes to their ASCII equivalent.
- 3. a) Find the 4 bytes in the bitmap file header that represents the file length, and write the length of the file as an 8-digit hexadecimal number. Remember to convert from little-endian. Check that the length value corresponds correctly to the length of the file.
- 4. a) Find the 4 bytes in the bitmap file header that represents the offset of the image data pixel array, and write this value as an 8digit hexadecimal number. (Again, convert from little-endian).
- 5. a) Find the start of the DIB header and write the value of the DIB header size as an 8-digit hexadecimal. b) Convert the value in part (a) to a decimal value and confirm that it is the correct length for a version 5 DIB header (denary 124).
- hexadecimal denary 6. a) Find the image height and image width fields width of the DIB header and write their values first as an 8-digit hexadecimal number, then height convert to denary.
- a) Find the number of bits per pixel in the DIB header and write the 7. value first as a 4 digit hexadecimal number, then converted to denary.
- 8. a) Find the compression method field of the DIB header and write the value as an 8-digit hexadecimal number.
- 9. Fill in the four bytes that make up each color from the color table, then look up the HTML/CSS named color that corresponds to the RGB portion.

File offset	index	AF	RGB he	Named Color (HTML/CSS)	

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Worksheet: Reading a Bitmap File

0000070	00 00 00 00 00 00 00 00 FF
0000000	00 00 00 00 00 00 00 00 FF
PV 0000080 00 00 C1 7E F7 5D 7F 60 00 00 DD 36 F3 5D 37 00000C0 00 00 DD 4C 34 DD 4F 60 00 00 EB FE F7 FF FF 00000D0 00 00 F7 FE F7 FF FF 60 00 00 FF FF FF FF 00000E0 00 00 FF FF FF FF FF E0 00 00	E0 60 60
Byte Number	
0 1 2 3 4 5 6 7	
11	
10	
9	
8	
Number 5	
$\frac{3}{4}$	
3	
2	
$\begin{smallmatrix}0&&&&1&&&&2&&&&3&&&&4&&&&5\\0&1&2&3&4&5&6&7&0&1&2&3&4&5&6&2&2&2&2&2&2&2&2&2&2&2&2&2&2&2&2&2&2$	
 	

1. Fill in the bytes of the bitmap file header according the the hexadecimal dump of your bmp file.

1. 1 111	111 (1	ie bytes o	i tiic bi	iiiup ii	ic iicad	ci acco	rumg u	ic the h	CAUCE	ciiiidi di	unip or	your b	mp inc	
byte	0	1	2	3	4	5	6	7	8	9	Α	В	С	D
use	si	gnature		file	size		reser	ved1	resei	ved1	file	offset to	o pixel a	rray
data														
data														
2	_ \ [,	547-24- 4l	C:	- 14	- f 4l	C:1 - : 1								
2.	a)	Write the	IIISI IW	b bytes	or the	111e III I	iexadec	imai 10	ormat.					
	ь0	Convert th	nese two	bytes	to thei	r ASCI	I equiva	alent.						
	L													
3.	a) [Find the 4	hvtes i	n the h	itman f	ile head	der that	renrese	ents the	e file				
٥.		length, an												
]	number. R	tememb	er to c	onvert	from lit	tle-end	ian. Ch	eck tha					
]	length val	ue corr	espond	s corre	ctly to t	he leng	th of th	e file.					
4	, [E: 1.1 4	1 , .	41 1	•, (·1 1	1 11 1		, ,1					
4.	- 1	Find the 4 offset of tl			-			-						
		digit hexa			-									
						· ·					1			
5.		Find the s					rite the	value o	of the I	OIB				
]	header siz	e as an	8-digit	hexade	ecimal.								
		Convert th												
	j	it is the co	rrect le	ngth fo	r a ver	sion 5 I	OIB hea	der (de	nary 1	24).				
										horro	decima	1	do	n o wy
	, Г.						0. 1.1			пеха	lueciiiia	1	de	nary
6.		Find the in of the DIE						wid	th					
		first as an												
		convert to			ciiiiai	ii diii o ci	, tileli	heig	ht					
	L													
7.		Find the n												
		value first	as a 4	digit he	exadeci	mal nui	mber, th	nen con	verted	to				
	[denary.												

9. Fill in the four bytes that make up each color from the color table, then look up the HTML/CSS named color that corresponds to the RGB portion.

File offset	index	AF	RGB he	Named Color (HTML/CSS)	

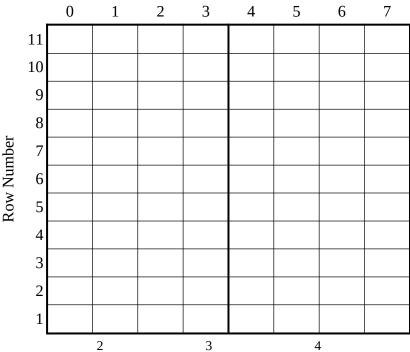
a) Find the compression method field of the DIB header and write

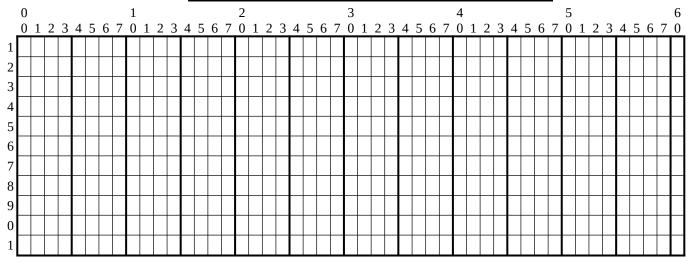
the value as an 8-digit hexadecimal number.

8.

Bettina.bmp		0	4	2			_			Nib				ess	_	_	_
		0	1	2	3	4	5	6	7	8	9	Α	В	C	D	E	F
Address of Leftmost Byte	0000000 0000010 0000020 0000030 0000040 0000050 0000060 0000070 0000080 0000090 00000A0 00000B0 00000C0 00000D0 00000E0	42 00 00 00 00 00 00 00 FF 80 80 80	4D 00 00 00 00 00 00 00 00 00 00 00	EA 31 58 02 00 00 00 FF BE DF FA FF	00 00 00 00 00 00 00 FF 1C 68 6C 1F FF	00 00 00 00 00 00 00 FF 79 37 61 FF FF	00 00 00 00 00 00 00 FF E7 DF FF	00 0B 13 00 42 00 00 FF 1B BB 3A BF FF	00 00 0B F8 47 00 00 FF B0 B0 71 FF	00 00 00 00 52 00 00 80 80 80 80 80	00 00 00 73 00 00 00 00 00 00 00	92 01 13 E0 00 00 02 80 FF BF EF FB	00 00 0B 07 00 00 00 FF 6B 1B 6F FF	00 01 00 00 00 00 00 80 FF F6 B7 FF	00 00 00 00 00 00 00 FF DB DF FF	7C 00 02 1F 00 00 CB FF BB B9 FF	00 00 00 00 00 00 00 C0 FF AE BE FF







1. Fill in the bytes of the bitmap file header according the the hexadecimal dump of your bmp file.

							_				=	_	-			
byte	0	1	2	3	4	5	6	7	8	9	Α	В	С	D		
use	sign	ature		file	size		reser	ved1	reser	ved1	file offset to pixel array					
data																
2.	a) Write the first two bytes of the file in hexadecimal format.															
	b0 С	Convert these two bytes to their ASCII equivalent.														
3.	a) Find the 4 bytes in the bitmap file header that represents the file length, and write the length of the file as an 8-digit hexadecimal number. Remember to convert from little-endian. Check that the length value corresponds correctly to the length of the file.															
4.	of	nd the 4 fset of t git hexa	he imag	ge data	pixel a	rray, aı	nd writ	e this v	alue as	an 8-						
5.	· / I	Find the start of the DIB header and write the value of the DIB header size as an 8-digit hexadecimal.														
	- 1	onvert th		-	٠, ,											
													_			

				hexadecimal	denary
6.	,	Find the image height and image width fields of the DIB header and write their values –	width		
		first as an 8-digit hexadecimal number, then convert to denary.	height		

7.	a) Find the number of <i>bits per pixel</i> in the DIB header and write value first as a 4 digit hexadecimal number, then converted to	
	denary.	

8.	a)	Find the compression method field of the DIB header and write	
		the value as an 8-digit hexadecimal number.	

File offset	index	AF	RGB he	xadecin	nal	Named Color (HTML/CSS)

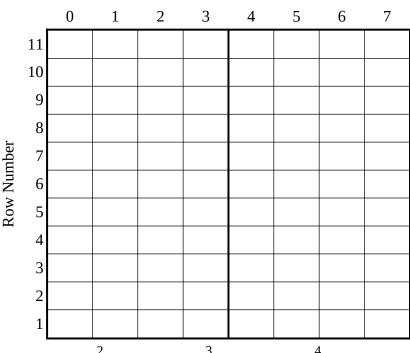
Worksheet: Reading a Bitmap File

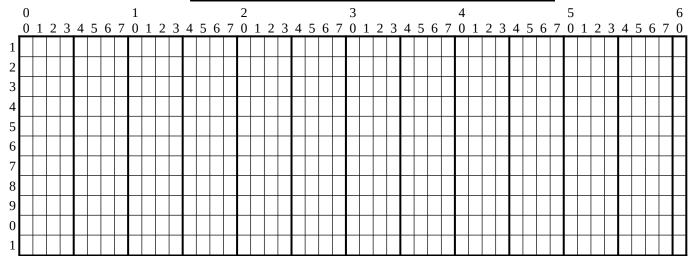
Tronsiect Iteating a Brimap I no

Buddy.bmp

Address of Leftmost Byte

					Le	ast	Sigi	nific	ant	Nib	ble	of A	Addı	ess			
		0	1	2	3	4	5	6	7	8	9	Α	В	C	D	Ε	F
	0000000	42	4D	EA	00	00	00	00	00	00	00	92	00	00	00	7C	00
	0000010	00	00	31	00	00	00	0B	00	00	00	01	00	01	00	00	00
	0000020	00	00	58	00	00	00	13	0B	00	00	13	0B	00	00	02	00
•	0000030	00	00	02	00	00	00	00	F8	00	00	E0	07	00	00	1F	00
	0000040	00	00	00	00	00	00	42	47	52	73	00	00	00	00	00	00
	0000050	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
	0000060	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
	0000070	00	00	00	00	00	00	00	00	00	00	02	00	00	00	00	00
	0800000	00	00	00	00	00	00	00	00	00	00	00	00	FF	00	00	D7
	0000090	FF	00	FF	FF	FF	FF	FF	FF	80	00	FF	FF	FF	FF	1F	FF
	00000A0	80	00	FF	FF	FF	FΕ	EF	FF	80	00	FΕ	1C	B2	CB	EF	F7
	00000B0	80	00	FF	6B	2C	В3	2F	FΒ	80	00	FF	6B	ΑE	BA	CF	FD
	00000C0	80	00	83	1B	AC	B2	E8	3E	80	00	FF	6B	B2	CA	EF	FD
	00000D0	80	00	FF	6F	FE	FΒ	FF	FΒ	80	00	FΕ	1F	FΕ	FΒ	FF	F7
	00000E0	80	00	FF	FF	FF	FF	FF	FF	80	00						





1. Fill in the bytes of the bitmap file header according the the hexadecimal dump of your bmp file.

byte	0	1	2	3	4	5	6	7	8	9	Α	В	С	D
use	signa	ature		file	size		reser	ved1	reser	ved1	file	offset to	pixel a	rray
data														
2.	a) Wr	ite the	first tw	o bytes	of the	file in l	nexadeo	cimal fo	ormat.					
	b0 Convert these two bytes to their ASCII equivalent.													
3.	len nui	gth, and mber. R	d write tememb	the len er to c	gth of tonvert	he file from lit	as an 8 tle-end	represe digit h ian. Ch	exadec eck tha	imal				
4.	a) Find the 4 bytes in the bitmap file header that represents the offset of the <i>image data pixel array</i> , and write this value as an 8-digit hexadecimal number. (Again, convert from little-endian).													
5.	a) Fir	nd the s	tart of t	he DIB	heade	r and w	rite the	value o	of the I	DIB				

header size as an 8-digit hexadecimal.		
Convert the value in part (a) to a decimal value and contit is the correct length for a version 5 DIB header (denated)		
	hexadecimal	denar

			hexadecimal	denary
6.	Find the image height and image width fields of the DIB header and write their values –	width		
	first as an 8-digit hexadecimal number, then convert to denary.	height		

7.	Find the number of <i>bits per pixel</i> in the DIB header and write the value first as a 4 digit hexadecimal number, then converted to	
	denary.	

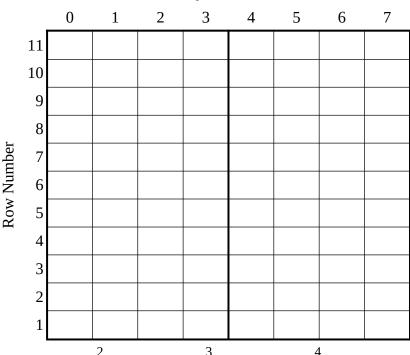
8.	a)	Find the compression method field of the DIB header and write	
		the value as an 8-digit hexadecimal number.	

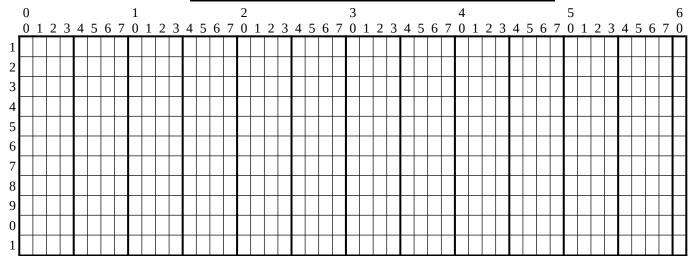
File offset	index	AF	RGB he	xadecin	nal	Named Color (HTML/CSS)

David.bmp

Address of Leftmost Byte

					Le	ast	Sigi	nific	ant	Nib	ble	of A	Addı	ess			
		0	1	2	3	4	5	6	7	8	9	Α	В	C	D	E	F
	0000000	42	4D	EA			00	00	00			92	00	00	00	7C	00
	0000010 0000020	00	00	31 58	00	00	00	0B 13	00 0B	00	00	01 13	00 0B	01 00	00	00 02	00 00
,	0000030	00	00	02	00	00	00	00	F8	00	00	E0	07	00	00	1F	00
	0000040 0000050	00	00	00	00	00	00	42 00	47 00	52 00	73 00	00	00	00	00	00	00 00
	0000060 0000070	00	00	00	00	00	00	00	00	00	00	00 02	00	00	00	00	00
	0000070	00	00	00	00	00	00	00	00	00	00	C0	C0	C0	00	00	00
	0000090 00000A0	80 80	00	FF F7	FF F0	FF F1	FF DF	FF 39	FF 7F	80 80	00	FF FF	FF FB	FF 5D	FF AF	FF 76	FF 7F
	00000A0	80	00	DF	FB	61	AF	77	7F	80	00	BC	1B	7D	77	76	41
	00000C0 00000D0	80 80	00	DF F7	FB F0	63 FF	76 FF	79 7F	7F 7F	80 80	00	EF FF	FB FF	7F FF	FF FF	FF FF	7F FF
	00000E0	80	00	FF				FF	FF	80	00				1 1	1 1	





1	Fill ir	the	hytes	of the	hitman	file	header	according	the	the	hexadecimal	dum	n of	vour h	mn f	file
т.	T 111 11	LUIC	Dytes	OI LIIC	Dittitup	1110	ncaaci	according	Suic	uic	IICAUUCCIIIIUI	uuiii	POL.	y Oui D	י קווו	m.

byte	0	1	2	3	4	5	6	7	8	9	Α	В	С	D
use	sig	nature		file	size		reser	ved1	reser	ved1	file	offset to	pixel a	rray
data														
2.	a) V	Write the first two bytes of the file in hexadecimal format.												
	ьоС	Convert these two bytes to their ASCII equivalent.												
3.	le n	Find the 4 bytes in the bitmap file header that represents the file length, and write the length of the file as an 8-digit hexadecimal number. Remember to convert from little-endian. Check that the length value corresponds correctly to the length of the file.												
4.	O	ind the 4 ffset of tl igit hexa	he imag	je data	pixel a	rray, aı	nd write	e this va	alue as	an 8-				
5.	1	ind the steader siz					rite the	value o	of the D	DIB				
		Convert the value in part (a) to a decimal value and confirm that it is the correct length for a version 5 DIB header (denary 124).												
										hexa	decima	1	de	nary

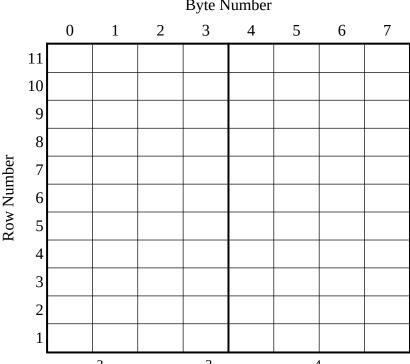
			hexadecimal	denary
6.	Find the image height and image width fields of the DIB header and write their values –	width		
	first as an 8-digit hexadecimal number, then convert to denary.	height		

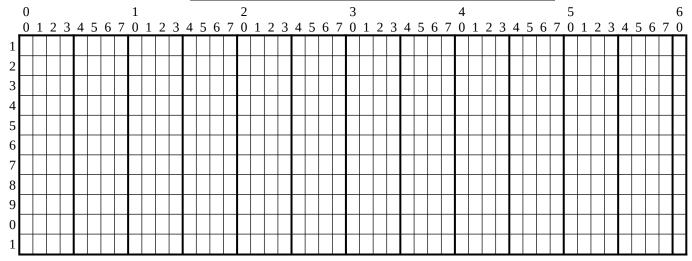
7.	a) Find the number of <i>bits per pixel</i> in the DIB header and write value first as a 4 digit hexadecimal number, then converted to	
	denary.	

8.	 Find the compression method field of the DIB header and write	0
	the value as an 8-digit hexadecimal number.	

File offset	index	AF	RGB he	Named Color (HTML/CSS)	

Eline.bmp					Le	ast	Sigi	nific	ant	Nib	ble	of A	Addı	ess			
		0	1	2	3	4	5	6	7	8	9	Α	В	С	D	E	F
Address of Leftmost Byte	0000000 000010 0000020 0000030 0000040 0000050 0000060 0000070 0000080 0000090 0000080 0000080 00000000	42 00 00 00 00 00 00 80 80 80 80	4D 00 00 00 00 00 00 00 00 00 00 00	EA 31 58 02 00 00 00 FF FE 82 FE FF	00 00 00 00 00 00 00 FF 0C FE FE FF	00 00 00 00 00 00 00 FF 71 FB FB FF	00 00 00 00 00 00 00 FF BB A7 FF FF	00 0B 13 00 42 00 00 00 FF 1F 0F FF FF	00 00 0B F8 47 00 00 FF E0 E0 FF	00 00 00 00 52 00 00 80 80 80 80 80	00 00 00 00 73 00 00 00 00 00 00 00	92 01 13 E0 00 00 02 CB FF FE FE FF	00 00 0B 07 00 00 00 FF FE 1E FF	00 01 00 00 00 00 00 FF FB FB FF FF	00 00 00 00 00 00 00 FF BA 9A FF	7C 00 02 1F 00 00 80 FF FF E8 FF	00 00 00 00 00 00 00 00 FF FF FF
]	Byte	. Nu	ımb	er							





1. Fill in the bytes of the bitmap file header according the the hexadecimal dump of your bmp file.

byte	0	1	2	3	4	5	6	7	8	9	Α	В	С	D
use	sig	nature		file	size reserved1 reserved1		ved1	file	offset to	pixel a	ırray			
data														
2.	a) Write the first two bytes of the file in hexadecimal format.													
	b0 C	Convert th	nese tw	o bytes	to thei	r ASCI	I equiva	alent.						
3.	a) Find the 4 bytes in the bitmap file header that represents the file length, and write the length of the file as an 8-digit hexadecimal number. Remember to convert from little-endian. Check that the length value corresponds correctly to the length of the file.													
4.	O	Find the 4 offset of the digit hexa	he imag	je data	pixel a	rray, aı	nd write	e this v	alue as	an 8-				
5.	· / I	Find the start of the DIB header and write the value of the DIB header size as an 8-digit hexadecimal.												
	b) Convert the value in part (a) to a decimal value and confirm that it is the correct length for a version 5 DIB header (denary 124).													
										1	docima	1		narv

				hexadecimal	denary
6.	,	Find the image height and image width fields of the DIB header and write their values –	width		
		first as an 8-digit hexadecimal number, then convert to denary.	height		

7.	Find the number of <i>bits per pixel</i> in the DIB header and write the value first as a 4 digit hexadecimal number, then converted to	
	denary.	

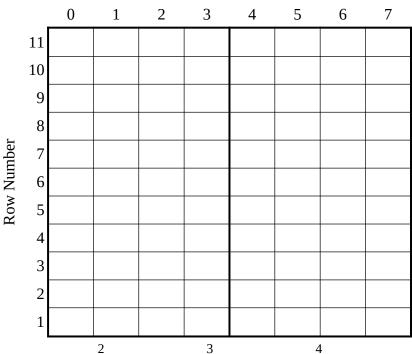
8.	a)	Find the compression method field of the DIB header and write	
		the value as an 8-digit hexadecimal number.	

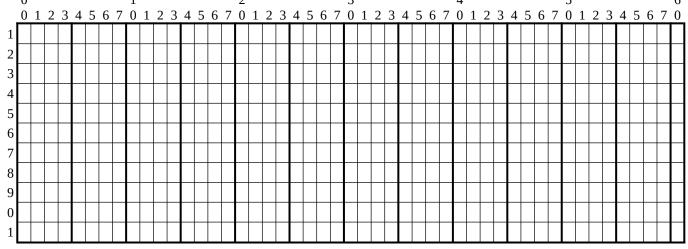
File offset	index	AF	RGB he	Named Color (HTML/CSS)	

Worksheet: Reading a Bitmap File

Gavin.bmp Least Significant Nibble of Address 2 6 0000000 42 4D EA 00 00 00 00 00 00 92 00 00 00 7C 00 0000010 00 01 00 00 31 00 00 00 0B 00 00 00 01 00 Address of Leftmost Byte 0000020 00 00 58 00 00 00 13 0B 00 00 13 0B 00 00 0000030 00 00 02 00 00 00 00 F8 00 00 E0 07 00 00 1F 00 0000040 42 47 52 73 00 00 00 00 00 00 00 00 00 00 00 0000050 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 0000060 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 0000070 00 00 00 00 00 00 00 00 00 00 02 00 00 00 00 00 00 00 00 00 0800000 00 00 00 00 00 00 80 80 80 0000090 00 FF FF FF FF FF FF 80 00 FF BF FF FΒ FF 00000A0 80 00 EF 1C 70 EF 1B B1 80 00 C7 BB AE BB BB D7 00000B0 FΒ D7 BB BF 00 C7 FB 80 00 EB 30 80 FΕ BB В9 BF 00000C0 00 C7 FB BF FF FF 00 AF FB F1 BB 3A 7F 80 FF 7F FF BF FF 80 00 FF FF FF FF FF 00000D0 80 00 EF FC 80 00 FF FF FF FF FF 80 00 00000E0







1. Fill in the bytes of the bitmap file header according the the hexadecimal dump of your bmp file

1. Fill	ın t	he bytes o	t the bi	tmap fi	le head	er acco	rding th	ne the h	exaded	cimal di	ump of	your b	mp file	•
byte) 1	2	3	4	5	6	7	8	9	Α	В	С	D
use	S	ignature		file	size		reserv	ved1	reser	ved1	file	offset to	pixel a	rray
data														
uata														
2	\[TA7 *4 41	<u> </u>	1 ,	C (1	C·1 · 1	1	. 10						
2.	a) Write the first two bytes of the file in hexadecimal format.													
	b0	Convert th	nese tw	o bytes	to thei	r ASCI	I equiva	alent.						
	Į													
3.	a)	Find the 4	. hvtes i	in the h	itman f	ile head	ler that	renrese	ents the	file				
٥.	u)	length, an												
		number. F								at the				
		length val	ue corr	espond	s corre	ctly to t	he leng	th of th	e file.					
4.	a)	Find the 4	bytoc i	in the h	itman f	ilo boa	dor that	roproce	onto the	`				
4.	aj	offset of t												
		digit hexa	_	•	-									
	. [
5.		Find the s					rite the	value o	of the I	DIB				
	+	header siz								-				
	b)	Convert the it is the co												
	l	it is the co	niect ie	ingui ic	n a vers	51011 5 1		iuei (ue	mary 1	2 4).				
										hexa	decima	1	de	nary
6.	a)	Find the in	mage h	eight aı	nd imag	ge widtl	n fields	المناد ب	.L					
		of the DIE	3 heade	r and w	rite the	eir valu	es –	wid	uı					
		first as an	_		ecimal	number	, then	heig	ht					
		convert to	denary	7.				11.016						
7.	a)	Find the n	umher	of hits	ner niv	<i>el</i> in the	n DIR h	eader a	nd wri	te the				
, •	a) Find the number of <i>bits per pixel</i> in the DIB header and write the value first as a 4 digit hexadecimal number, then converted to													
		denary.												

Fill in the four bytes that make up each color from the color table, then look up the HTML/CSS 9. named color that corresponds to the RGB portion.

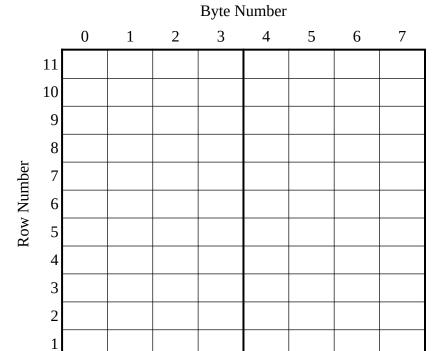
File offset	index	AF	RGB he	Named Color (HTML/CSS)	

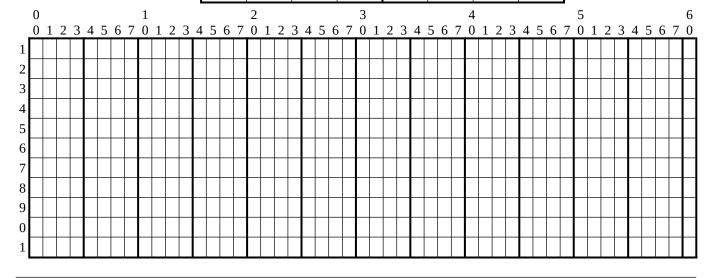
a) Find the compression method field of the DIB header and write

the value as an 8-digit hexadecimal number.

8.

Harry.bmp					Le	ast	Sigi	nific	ant	Nib	ble	of A	Addı	ess			
		0	1	2	3	4	5	6	7	8	9	Α	В	С	D	E	F
Address of Leftmost Byte	0000000 000010 0000020 0000030 0000040 0000050 0000060 0000070 0000080 0000090 0000080 0000080 00000000	42 00 00 00 00 00 00 80 80 80 80 80	4D 00 00 00 00 00 00 00 00 00 00 00	EA 31 58 02 00 00 00 00 FF FE BB 83 BB FF	00 00 00 00 00 00 00 FF 0F FB FB FF	00 00 00 00 00 00 00 FF AE 3E FF	00 00 00 00 00 00 00 FF FF BE 9A FF	00 0B 13 00 42 00 00 00 FF FB FC 6B FF	00 00 0B F8 47 00 00 FF A0 BF FF FF	00 00 00 00 52 00 00 80 80 80 80 80	00 00 00 00 73 00 00 00 00 00 00 00	92 01 13 E0 00 00 02 00 FF FF D7 FF	00 00 0B 07 00 00 FF FB FB FB	00 01 00 00 00 00 00 FF B0 B1 BF	00 00 00 00 00 00 00 FF BE A6 FF	7C 00 02 1F 00 00 00 FC FF FB 9B FF	00 00 00 00 00 00 00 80 7F BF 3F FF
									_								

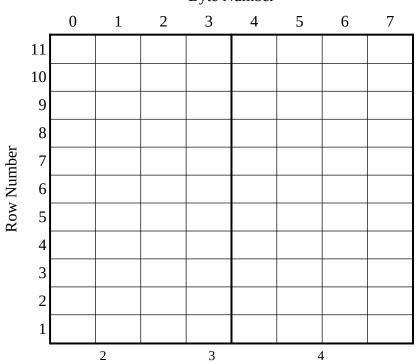


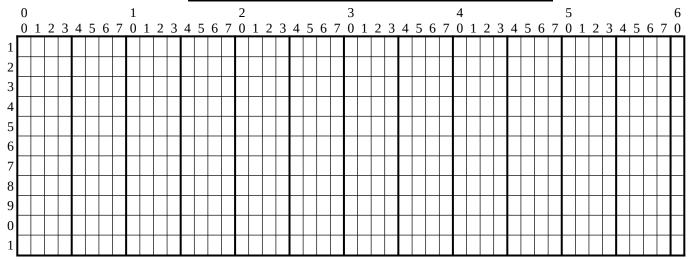


1. Fill	in t	the bytes o	f the bi	tmap fi	le head	er acco	rding th	ne the h	exadec	imal du	ımp of	your b	mp file	
byte	() 1	2	3	4	5	6	7	8	9	Α	В	С	D
use	S	ignature		file	size		reserv	ved1	reser	ved1	file	offset to	pixel a	rray
data														
2.	a)	Write the	first tw	o bytes	of the	file in h	ıexadec	imal fo	rmat.					
	b0	Convert th	nese tw	o bytes	to thei	r ASCII	equiva	ılent.						
3.	a)	Find the 4 length, an number. R length val	d write Iememl	the len per to c	gth of tonvert	he file a	as an 8- tle-endi	-digit he ian. Che	exadec	imal				
4.	a)	Find the 4 offset of the digit hexa	he imag	je data	pixel a	<i>rray</i> , ar	nd write	this va	lue as	an 8-				
5.	a)	Find the s header siz					rite the	value o	f the D	OIB				
	b)	Convert the it is the co												
										hexac	decima	ıl	de	nary
6.	a)	Find the in	3 heade	r and w	rite the	ir value	es –	widt	h					
		first as an convert to			ecimal	number	, then	heigh	nt					
7.	a)	Find the n value first denary.		_	-									
8.	a)	Find the c	-					header	and w	rite				

File offset	index	AF	RGB he	xadecin	nal	Named Color (HTML/CSS)

Ivy.bmp		0	1	2	Le 3	ast 4	Sigi 5	nific 6	ant 7	Nib 8	ble 9	of A	Addı B	ess C	D	E	F
Address of Leftmost Byte	0000000 0000010 0000020 0000030 0000040 0000050 0000060 0000070 0000080 0000090 00000A0 00000B0 00000C0 00000D0 00000E0	42 00 00 00 00 00 00 00 00 80 80 80 80	4D 00 00 00 00 00 00 00 00 00 00 00	EA 31 58 02 00 00 00 FF FF AB FF	00 00 00 00 00 00 00 FF FE FE FF	00 00 00 00 00 00 00 FF FB FB FB	00 00 00 00 00 00 00 FF FE D7 BA FF	00 0B 13 00 42 00 00 00 FF EF EF FE FF	00 00 0B F8 47 00 00 FF FF FF EA FF	00 00 00 00 52 00 00 80 80 80 80	00 00 00 00 73 00 00 00 00 00 00 00	92 01 13 E0 00 00 02 00 FF FE B6 DB	00 00 0B 07 00 00 80 FF OD FF	00 01 00 00 00 00 80 FF 71 FB 71	00 00 00 00 00 00 00 FF D6 BA FF	7C 00 02 1F 00 00 00 1F ED CF FD	00 00 00 00 00 00 00 FF FF 7F 6D F6
]	Byte	e Nu	ımb	er							
		0	1	L	2		3		4		5		6		7		





English name: Joey

1. Fill in the bytes of the bitmap file header according the the hexadecimal dump of your bmp file.

1. Fil.	lini	the bytes (of the bi	tmap fi	le head	ler accord	ding th	ne the h	exadec	imal di	ımp ot	your b	mp file	•			
byte	() 1	2	3	4	5	6	7	8	9	Α	В	С	D			
use	S	ignature		file	size		reser	ved1	reser	ved1	file	offset to	o pixel a	rray			
data																	
				ļ													
2.	a)	Write the	first tw	o bytes	of the	file in he	exadec	imal fo	rmat.								
	bΩ	Convert t	hoco tw	o bytos	to thei	r ASCII (oguixa	nlont									
	DU	Convert	iiese tw	O Dytes	to their	- ASCII (equiva	110110.									
3.	2)	Find the	1 bytes	in the b	itman f	filo boado	or that	roproco	nte the	filo							
J.	aj	length, ar						-									
		number.								t the							
		length va	ength value corresponds correctly to the length of the file.														
4.	a)	Find the	Find the 4 bytes in the bitmap file header that represents the														
		offset of the <i>image data pixel array</i> , and write this value as an 8-digit hexadecimal number. (Again, convert from little-endian).															
		digit nexa	adecima	II IIUIIID	er. (Ag	alli, Collv	ert ire	JIII IIIIIE	enuia	11).							
5.	a)						ite the	value o	f the D	DΙΒ							
		header si															
	b)	Convert t it is the c															
		it is the C	orrect re	ingui io	n a ver	וט כ ווטו	ID Hea	iuei (uei	lialy 12	24).							
										hexa	decima	1	de	nary			
6.	a)	Find the						widt	h								
		of the DI first as ar							-								
		convert to			Cilliai	iidiiibci,	uicii	heigh	ıt								
													<u> </u>				
7.	a)	Find the value firs		-	-												
		denary.	i as a 4	uigit iit	.Aautti	mai mulli	ioei, ii	ich com	verteu	i.o							

9. Fill in the four bytes that make up each color from the color table, then look up the HTML/CSS named color that corresponds to the RGB portion.

File offset	index	AF	RGB he	xadecin	nal	Named Color (HTML/CSS)

a) Find the compression method field of the DIB header and write

the value as an 8-digit hexadecimal number.

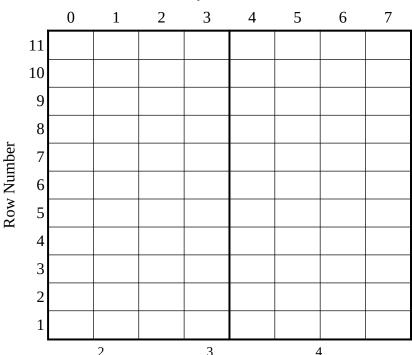
8.

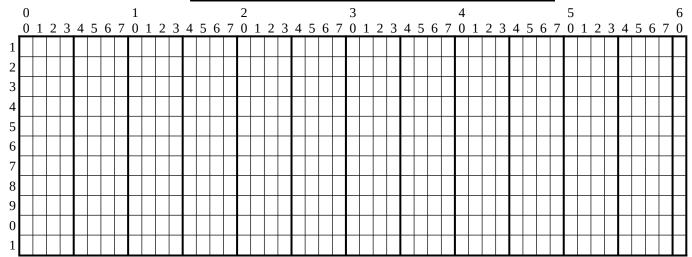
Worksheet: Reading a Bitmap File

Joey		pwk)
------	--	-----	---

Address of Leftmost Byte

					Le	ast	Sigi	nific	ant	Nib	ble	of A	۸ddı	ess			
		0	1	2	3	4	5	6	7	8	9	Α	В	C	D	Ε	F
	0000000 0000010	42 00	4D 00	EA 31	00	00	00	00 0B	00	00	00	92 01	00	00 01	00	7C 00	00
3	0000020 0000030	00	00	58 02	00	00	00	13 00	0B F8	00	00	13 E0	0B 07	00	00	02 1F	00
	0000040 0000050	00	00	00	00	00	00	42	47	52 00	73 00	00	00	00	00	00	00
	0000060	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
	0000070 0000080	00	00	00	00	00	00	00	00	00	00	02 80	00 80	00	00 00	00 80	00 00
	0000090 00000A0	00 80	00	FF FF	FF FF	FF FF	FF FE	FF EF	FF FF	80 80	00	FF F7	FF FC	FF F1	FF C7	1F EF	FF F7
	00000B0 00000C0	80 80	00	EF DF	FB FF	6E 6E	BF BA	2F EF	FB FD	80 80	00	DE DE	0F 0F	6E 71	82 C6	C8 E8	3D 3D
	00000D0 00000E0	80 80	00	EF FF	FF FF	7F FF	FF	FF FF	FB FF	80 80	00	F7	FE	3F	FF	FF	F7
	5555525				• •	• •		•••	••								





denary.

1. Fill in the bytes of the bitmap file header according the the hexadecimal dump of your bmp file.

1. FIII	III UI	e bytes o	i tile bi	шар п	ie neau	er acco	numg u	ie uie ii	exaue	ciiiiai u	ump or	your D	iiih iiie	•
byte	0	1	2	3	4	5	6	7	8	9	Α	В	С	D
use	sig	nature		file	size		reser	ved1	resei	ved1	file	offset to	pixel a	rray
data														
2.		Vrite the							rmat.					
		ZOIIVCIT ti	icse two	o bytes	to then	i rioci.	requive	iiciit.						
3.	le	ind the 4 ength, an umber. F ength val	d write Lememb	the len er to c	gth of t	the file from lit	as an 8- ttle-end	-digit ho	exaded eck tha	imal				
4.	O	ind the 4 ffset of t igit hexa	he imag	je data	pixel a	rray, aı	nd write	e this va	lue as	an 8-				
5.		ind the seader siz					rite the	value o	of the I	OIB				
		Convert th												
										hexa	decima	ıl	de	nary
6.	O	ind the inf the DIE	3 heade	r and w	rite the	eir valu	es –	widt	h					
	I	irst as an onvert to	_		ecimal	number	then	heigl	nt					
7.	- 1	ind the n												

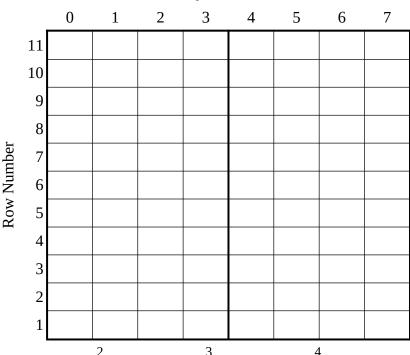
8. a) Find the compression method field of the DIB header and write the value as an 8-digit hexadecimal number.

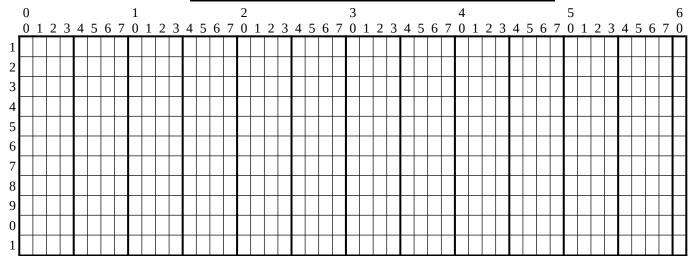
File offset	index	AF	RGB he	xadecin	nal	Named Color (HTML/CSS)

Laura.bmp

Address of Leftmost Byte

				Le	ast	Sigi	nific	ant	Nib	ble	of A	Addı	ess			
	0	1	2	3	4	5	6	7	8	9	Α	В	C	D	Ε	F
0000000 000010 0000020 0000030 0000040 0000050 0000060 0000070 0000080 0000090 0000080 0000080	42 00 00 00 00 00 00 00 FF 80 80	4D 00 00 00 00 00 00 00 00 00 00 00	EA 31 58 02 00 00 00 FF FF FF	00 00 00 00 00 00 00 00 FF BF BF	00 00 00 00 00 00 00 00 FF ED FF	00 00 00 00 00 00 00 00 FF C3 C2	00 0B 13 00 42 00 00 00 FF 2B EB FA	00 00 0B F8 47 00 00 00 FF F0 71	00 00 00 00 52 00 00 00 80 80 80	00 00 00 00 73 00 00 00 00 00 00	92 01 13 E0 00 00 00 02 00 83 FF FF	00 00 08 07 00 00 00 00 F8 BF BF	00 01 00 00 00 00 00 80 3F EF EF	00 00 00 00 00 00 00 00 FF BA FA	7C 00 02 1F 00 00 FF CB E9 FF	00 00 00 00 00 00 00 00 00 FF EE BE
00000C0 00000D0 00000E0	80	00	FF FF	BF	EF	FF	FF	FF	80	00		FF		FF		FF
0000000	30			''	''	''	''	' '								





denary.

8.

1. Fill in the bytes of the bitmap file header according the the hexadecimal dump of your bmp file.

byte	0	1	2	3	4	5	6	7	8	9	Α	В	С	D
use	sig	nature		file	size		reserv	ed1	reser	ved1	file	offset to	pixel a	ırray
data														
	<u> </u>						ļ	ļ				<u> </u>		
2.	a) V	Vrite the	first tw	o bytes	of the	file in h	exadec	imal fo	rmat.					
	b0 C	Convert th	nese tw	o bytes	to thei	r ASCII	equiva	lent.						
3.		ind the 4	-		-			-						
		umber. R												
	le	ength val	ue corr	espond	s corre	ctly to th	ne leng	th of th	e file.					
4.	a) F	ind the 4	bytes i	n the b	itmap f	ile head	ler that	represe	ents the	<u>.</u>				
		ffset of tl												
		iigit iiexa	ueciiia	1 IIuIIIU	ei. (Ag	aiii, Coii	veit iit	7111 111111	e-enuic					
5.		ind the see eader siz					rite the	value c	of the I	DIB				
	-	Convert th					ıəl vəlu	e and c	onfirm	that				
		is the co												
										hexa	decima	 ıl	de	nary
6.		ind the in	_	_	_	•		widt	h					
	I	f the DIE irst as an												
		onvert to						heigl	nt					
7.	a) F	ind the n	umber	of bits	ner nix	<i>el</i> in the	DIB h	eader a	nd wri	te the				
•		alue first												

Fill in the four bytes that make up each color from the color table, then look up the HTML/CSS 9. named color that corresponds to the RGB portion.

File offset	index	AF	RGB he	xadecin	nal	Named Color (HTML/CSS)

a) Find the compression method field of the DIB header and write

the value as an 8-digit hexadecimal number.

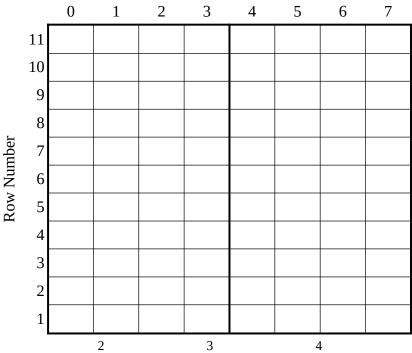
English name: Owen

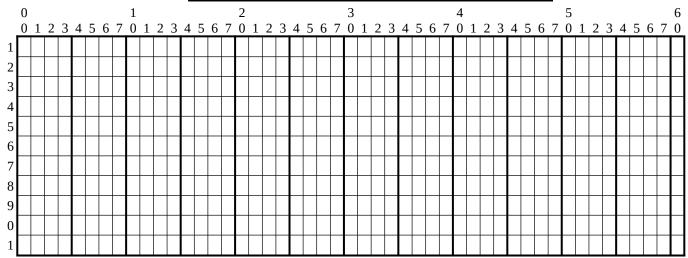
Worksheet: Reading a Bitmap File

Owen.bmp

Address of Leftmost Byte

					Le	ast	Sigi	nific	ant	Nib	ble	of A	Addı	ess			
		0	1	2	3	4	5	6	7	8	9	Α	В	C	D	Е	F
	0000000 0000010	42 00	4D 00	EA 31	00	00	00	00 0B	00	00	00	92 01	00	00 01	00	7C 00	00
,	0000020 0000030	00	00	58 02	00	00	00	13	0B F8	00	00	13 E0	0B 07	00	00	02 1F	00
	0000040	00	00	00	00	00	00	42	47	52	73	00	00	00	00	00	00
	0000050 0000060	00	00	00	00	00	00	00 00	00	00	00	00	00	00	00	00	00 00
	0000070 0000080	00	00	00	00	00	00	00	00	00	00	02 2A	00 2A	00 A5	00	00	00 A5
	0000090 00000A0	FF 80	00	FF FF	FF DC	FF 75	FF C6	FF FD	FF FF	80 80	00	FF FF	FF BB	FF AA	FF BF	FF	FF FF
	00000B0	80	00	FF	7B	AA	82	EF	7F	80	00	83	7B	ΑE	BA	6F	60
	00000C0 00000D0	80 80	00	FF FF	7B DC	AE 7F	C6 FF	9F FD	7F FF	80 80	00	FF FF	BB FF	BF FF	FF FF	FE FF	FF FF
	00000E0	80	00	FF	FF	FF	FF	FF	FF	80	00						





denary.

1. Fill in the bytes of the bitmap file header according the the hexadecimal dump of your bmp file.

byte	0	1	2	3	4	5	6	7	8	9	Α	В	С	D
use	sigr	nature		file	size		reserv	ed1	reser	ved1	file	offset to	pixel a	rray
data														
2.	a) W	rite the	first tw	o bytes	of the	file in h	exadec	imal for	mat.					
	b0 C	onvert tl	nese two	bytes	to thei	r ASCII	equiva	lent.						
3.	le nı	nd the 4 ngth, an ımber. R ngth val	d write Lememb	the len er to c	gth of to	the file of from lit	as an 8- tle-endi	digit he an. Che	xadec ck tha	imal				
4.	of	nd the 4 fset of t git hexa	he <i>imag</i>	e data	pixel a	rray, ar	ıd write	this val	ue as	an 8-				
5.		nd the s eader siz					rite the	value of	f the I	DIB				
		onvert th												
										hexa	decima	ıl	de	nary
6.	of	nd the in	3 heade	r and w	rite the	eir value	es –	width	ı					
	I	rst as an onvert to	_		ecimal	number	, then	heigh	t					

	- 1	first as an 8-digit hexadecimal number, then convert to denary.	height		
7.		Find the number of <i>bits per pixel</i> in the DIB he value first as a 4 digit hexadecimal number, the			

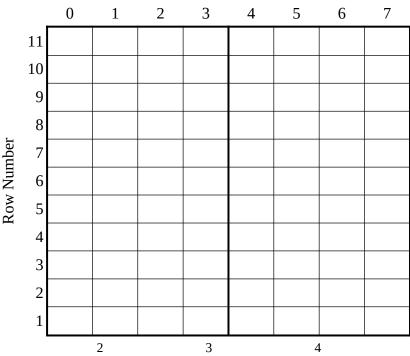
8.	a)	Find the compression method field of the DIB header and write	
		the value as an 8-digit hexadecimal number.	

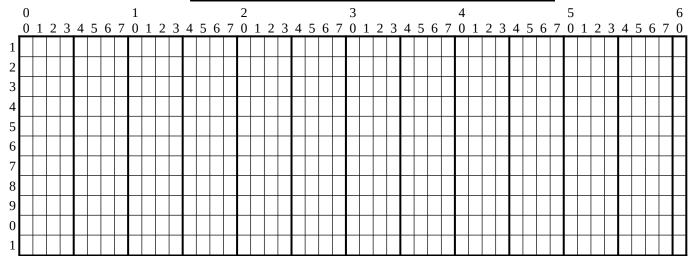
File offset	index	AF	RGB he	xadecin	nal	Named Color (HTML/CSS)

Rocky.bmp

Address of Leftmost Byte

				Le	ast	Sigi	nific	ant	Nib	ble	of A	۸ddı	ess			
	0	1	2	3	4	5	6	7	8	9	Α	В	C	D	Е	F
0000000 000010 0000020 0000030 0000040 0000050 0000060 0000070 0000080 0000080 0000080 0000080	42 00 00 00 00 00 00 00 45 80 80	4D 00 00 00 00 00 00 00 00 00 00	EA 31 58 02 00 00 00 FF DB C3	00 00 00 00 00 00 00 00 FF 75	00 00 00 00 00 00 00 00 FF D6	00 00 00 00 00 00 00 00 FF DD E5	00 0B 13 00 42 00 00 00 FF FF DF	00 00 0B F8 47 00 00 00 FF FD FD	00 00 00 00 52 00 00 00 80 80 80	00 00 00 00 73 00 00 00 00 00	92 01 13 E0 00 00 02 C0 FF DD	00 00 0B 07 00 00 00 C0 FF 8E 75 8F	00 01 00 00 00 00 00 C0 FF 37 F1	00 00 00 00 00 00 00 00 E3 7D D9	7C 00 02 1F 00 00 00 2A FF DC	00 00 00 00 00 00 00 00 2A FF FD
00000E0 00000E0	80	00	DD FF	FF	F7	FF	DF FF	FD	80	00	C3	FF	F7	FF	DF	FD
222022			•				•	•								





8.

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1. Fill in the bytes of the bitmap file header according the the hexadecimal dump of your bmp file.

		the bytes o													
byte use		0 1 ignature	2	3 file	4	5	6 reserv	7 vod1	8 reser	9 vod1	A	B offset to	C nivel a	rray	
		Ignature	<u> </u>	1116	SIZE		16861	veui	16361	veui	IIIC		PIXCI U	lituy	
data															
2.	a)	Write the	first tw	o bytes	of the	file in he	exadec	cimal fo	rmat.						
	b0	Convert t	hese tw	o bytes	to thei	r ASCII e	equiva	alent.							
3.	a)	Find the delength, and number. I length va	nd write Remem	the len ber to c	gth of to	the file as from littl	s an 8- e-end	-digit he ian. Che	exadec eck tha	imal					
 4. 5. 		Find the 4 bytes in the bitmap file header that represents the offset of the <i>image data pixel array</i> , and write this value as an 8-digit hexadecimal number. (Again, convert from little-endian). Find the start of the DIB header and write the value of the DIB													
J.	a)	header si					ite tile	value 0	i lile L	מול					
	b)	Convert t													
										hexa	decima	 ıl	de	nary	
6.	a)	Find the i	B heade	er and w	rite the	eir values	s —	widt	h					-	
		first as ar convert to	_		ecimal	number, t	then	heigh	nt						
7.	a)	Find the value first denary.													
0		denary.			.1 1.0		DID	. 1 1	1	•.					

9. Fill in the four bytes that make up each color from the color table, then look up the HTML/CSS named color that corresponds to the RGB portion.

File offset	index	AF	RGB he	xadecin	nal	Named Color (HTML/CSS)

a) Find the compression method field of the DIB header and write

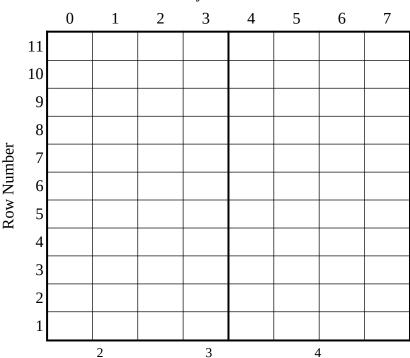
the value as an 8-digit hexadecimal number.

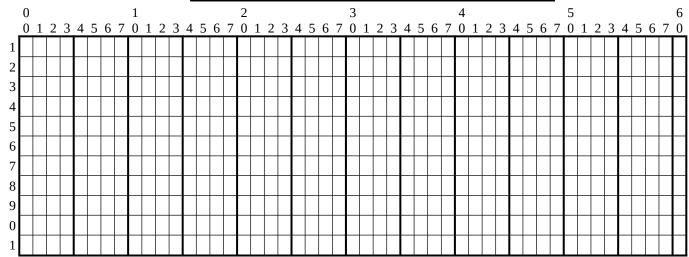
Worksheet: Reading a Bitmap File

Ruby	٧.	bm	p
I COD	, .	~	М

Address of Leftmost Byte

				Le	ast	Sigi	nific	ant	Nib	ble	of A	Addı	ess			
	0	1	2	3	4	5	6	7	8	9	Α	В	C	D	Ε	F
0000000	42	4D	EA	00	00	00	00	00	00	00	92	00	00	00	7C	00
0000010	00	00	31	00	00	00	0B	00	00	00	01	00	01	00	00	00
0000020	00	00	58	00	00	00	13	0B	00	00	13	0B	00	00	02	00
0000030	00	00	02	00	00	00	00	F8	00	00	E0	07	00	00	1F	00
0000040	00	00	00	00	00	00	42	47	52	73	00	00	00	00	00	00
0000050	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
0000060	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
0000070	00	00	00	00	00	00	00	00	00	00	02	00	00	00	00	00
0800000	00	00	00	00	00	00	00	00	00	00	80	00	80	00	FF	00
0000090	FF	00	FF	FF	FF	FF	FF	FF	80	00	FF	FF	F1	FF	FF	FF
0A0000	80	00	FF	FF	ΕE	FF	FF	FF	80	00	BB	2A	7E	FΕ	0C	72
00000B0	80	00	В6	C9	B2	FΕ	FΕ	EC	80	00	ΑE	EΒ	AC	FΕ	FΕ	EE
00000C0	80	00	86	E9	ΑE	82	FE	ΕE	80	00	BA	EΑ	6E	FΕ	FC	EE
00000D0	80	00	BB	FΒ	FF	FΕ	FF	FF	80	00	87	FΒ	FF	FΕ	FΕ	FF
00000E0	80	00	FF	FF	FF	FF	FF	FF	80	00						





English name: Sarah

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1. Fill in the bytes of the bitmap file header according the the hexadecimal dump of your bmp file.

1. 1 111	111 (1	ie bytes o	i tiic bi	iiiup ii	ic iicad	ci acco	rumg u	ic the h	CAUCE	ciiiidi di	unip or	your b	mp inc	
byte	0	1	2	3	4	5	6	7	8	9	Α	В	С	D
use	si	gnature		file	size		reser	ved1	resei	ved1	file	offset to	o pixel a	rray
data														
data														
2	_ \ [,	547-24- 4l	C:	- 14	- f 4l	C:1 - : 1								
2.	a)	Write the	IIISI IW	b bytes	or the	111e III I	iexadec	imai 10	ormat.					
	ь0	Convert th	nese two	bytes	to thei	r ASCI	I equiva	alent.						
	L													
3.	a) [Find the 4	hvtes i	n the h	itman f	ile head	der that	renrese	ents the	e file				
٥.		length, an												
]	number. R	tememb	er to c	onvert	from lit	tle-end	ian. Ch	eck tha					
]	length val	ue corr	espond	s corre	ctly to t	he leng	th of th	e file.					
4	, [E: 1.1 4	1 , .	41 1	•, (·1 1	1 11 1		, ,1					
4.	- 1	Find the 4 offset of tl			-			-						
		digit hexa			-									
						· · · · · · · · · · · · · · · · · · ·					1			
5.		Find the s					rite the	value o	of the I	OIB				
]	header siz	e as an	8-digit	hexade	ecimal.								
		Convert th												
	j	it is the co	rrect le	ngth fo	r a ver	sion 5 I	OIB hea	der (de	nary 1	24).				
										horro	decima	1	do	n o wy
	, Г.						0. 1.1			пеха	lueciiiia	1	de	nary
6.		Find the in of the DIE						wid	th					
		first as an												
		convert to			ciiiiai	ii diii o ci	, tileli	heig	ht					
	L													
7.		Find the n												
		value first	as a 4	digit he	exadeci	mal nui	mber, th	nen con	verted	to				
	[denary.												

Fill in the four bytes that make up each color from the color table, then look up the HTML/CSS 9. named color that corresponds to the RGB portion.

File offset	index	AF	RGB he	xadecin	nal	Named Color (HTML/CSS)

a) Find the compression method field of the DIB header and write

the value as an 8-digit hexadecimal number.

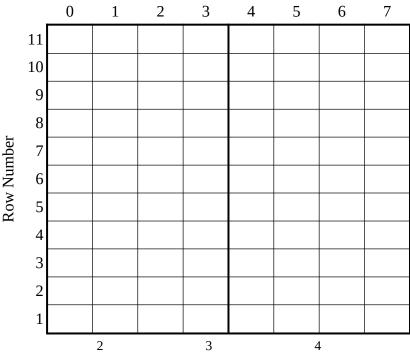
8.

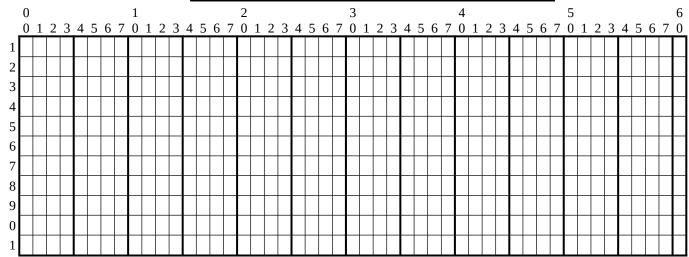
Worksheet: Reading a Bitmap File

Sarah.bmp

Address of Leftmost Byte

				Le	ast	Sigr	nific	ant	Nib	ble	of A	Addı	ess			
	0	1	2	3	4	5	6	7	8	9	Α	В	C	D	Е	F
0000000 0000010 0000020 0000030 0000040 0000050 0000060 0000070 0000080 0000090 0000080 0000080 00000000	42 00 00 00 00 00 00 00 FF 80 80 80 80	4D 00 00 00 00 00 00 00 00 00 00 00 00	EA 31 58 02 00 00 00 FF C7 FB FC C7	00 00 00 00 00 00 00 00 FF 0B 1A FF	00 00 00 00 00 00 00 00 FF F0 71 FF	00 00 00 00 00 00 00 00 FF BB BB A7 BF	00 0B 13 00 42 00 00 00 FF 1B FA FB FB	00 00 0B F8 47 00 00 00 FF B2 AE BF	00 00 00 00 52 00 00 00 80 80 80 80 80	00 00 00 00 73 00 00 00 00 00 00	92 01 13 E0 00 00 02 FF FF BA C7 BB FF	00 00 0B 07 00 00 00 FF EB E9 FF	00 01 00 00 00 00 00 FF FF EE BE FF	00 00 00 00 00 00 00 00 FF BB 9B FF	7C 00 02 1F 00 00 00 BF B9 FA FB FF	00 00 00 00 00 00 00 00 FF 2C AE BF FF
0000000	30		ır	1 [1 5	1 [1 F	i F	00							





1. Fill in the bytes of the bitmap file header according the the hexadecimal dump of your bmp file.

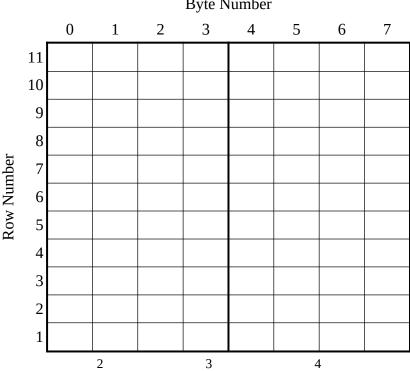
1. 1 111	111 (11)	by tes o	i the or	unup n	ic iicuc	iei accoi	umg u	ic the m	Слиисс	Jiiiai a	mp or	your b	p 1111C	•
byte	0	1	2	3	4	5	6	7	8	9	Α	В	С	D
use	sign	nature		file	size		reserv	ved1	reser	ved1	file	offset to	pixel a	rray
data														
uata														
2	5) TA	Tuita tha	finat to a	- h	of the	file in h		ina al fa						
2.	a) W	rite the	IIISI IW	o bytes	or the	file in he	exadec	illiai 10	rmat.					
	b0 C	onvert tl	nese two	o bytes	to thei	r ASCII	equiva	alent.						
													1	
3.	a) Fi	ind the 4	bvtes i	n the b	itmap f	ile head	er that	represe	nts the	file				
	- 1					the file a								
						from litt				it the				
	le	ngth val	ue corr	espond	s corre	ctly to th	ne leng	th of th	e file.					
4.	2) Fi	ind the 1	bytes i	n the h	itman f	ile head	or that	ronrocc	nte the	<u> </u>				
4.	/		0			rray, and								
						ain, con								
5.						r and wr	ite the	value c	f the I	DΙΒ				
	he	eader siz	e as an	8-digit	hexad	ecimal.								
						a decim								
	it	is the co	rrect le	ngth fo	r a ver	sion 5 D	IB hea	der (de	nary 1	24).				
										hexa	decima	 ıl	de	nary
6.	2) Ei	ind the i	mago h	oiaht ar	nd imag	ge width	fiolds							- J
0.	- 1		_	_	•	eir value		widt	h					
	_					number,		, , ,						
	- 1	onvert to	_					heigl	ıt					
													1	

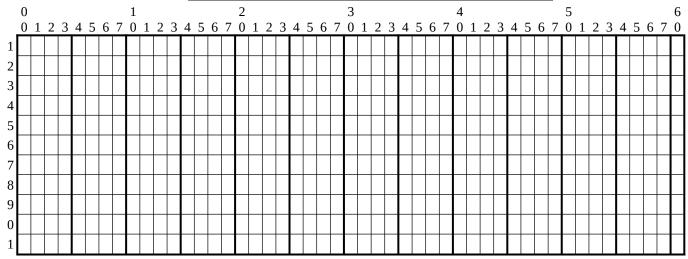
7.	,	Find the number of <i>bits per pixel</i> in the DIB header and write the	
		value first as a 4 digit hexadecimal number, then converted to	
		denary.	

8.	a)	Find the compression method field of the DIB header and write	
		the value as an 8-digit hexadecimal number.	

File offset	index	AF	RGB he	xadecin	nal	Named Color (HTML/CSS)

Stella.bmp					Le	ast	Sigi	nific	ant	Nib	ble	of A	Addı	ess			
		0	1	2	3	4	5	6	7	8	9	Α	В	С	D	E	F
Address of Leftmost Byte	0000000 000010 0000020 0000030 0000040 0000050 0000060 0000070 0000080 0000090 00000A0 00000B0 00000C0 00000D0 00000E0	42 00 00 00 00 00 00 80 80 80 80	4D 00 00 00 00 00 00 00 00 00 00 00	EA 31 58 02 00 00 00 FF FF BA EF FF	00 00 00 00 00 00 00 FF 1E ED F8 1D	00 00 00 00 00 00 00 FF 71 E0 71 FF	00 00 00 00 00 00 00 FF C7 EF CF FF	00 0B 13 00 42 00 00 FF 1C BC 3F FF	00 00 0B F8 47 00 00 FF 3F 3F 6E FB FF	00 00 00 00 52 00 00 80 80 80 80	00 00 00 00 73 00 00 00 00 00 00 00	92 01 13 E0 00 00 02 00 FF FE FF D6 FF	00 00 0B 07 00 00 00 FF FF ED 1D ED FF	00 01 00 00 00 00 00 FF FF AF EE FF	00 00 00 00 00 00 00 FF EF EF FF	7C 00 02 1F 00 00 00 FF BB BF FF	00 00 00 00 00 00 00 FF BF F5 FF
]	Bvte	e Nu	ımb	er							





English name: Una

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1.	Fill in	the by	ztes of	f the	bitmap	file	header	accordi	ng i	the th	ie hexa	decimal	dum	n of	vour	bmp	file	
т,	• 1 111 111	uic o	rico o	Luic	Dininap	1110	ncuaci	accordi	י כיי	uic u	ic near	accillia	uuiii	P OI	your	DIIIP	, 1110	•

byte	0	1	2	3	4	5	6	7	8	9	Α	В	С	D
use	signa	ature		file	size		reser	ved1	reser	ved1	file	offset to	pixel a	rray
data														
											-			

- a) Write the first two bytes of the file in hexadecimal format.b0 Convert these two bytes to their ASCII equivalent.
- 3. a) Find the 4 bytes in the bitmap file header that represents the file length, and write the length of the file as an 8-digit hexadecimal number. Remember to convert from little-endian. Check that the length value corresponds correctly to the length of the file.
- 4. a) Find the 4 bytes in the bitmap file header that represents the offset of the *image data pixel array*, and write this value as an 8-digit hexadecimal number. (Again, convert from little-endian).
- 5. a) Find the start of the DIB header and write the value of the DIB header size as an 8-digit hexadecimal.b) Convert the value in part (a) to a decimal value and confirm that
 - it is the correct length for a version 5 DIB header (denary 124).
- 6. a) Find the image height and image width fields of the DIB header and write their values first as an 8-digit hexadecimal number, then convert to denary.
- 7. a) Find the number of *bits per pixel* in the DIB header and write the value first as a 4 digit hexadecimal number, then converted to denary.
- 8. a) Find the compression method field of the DIB header and write the value as an 8-digit hexadecimal number.
- 9. Fill in the four bytes that make up each color from the color table, then look up the HTML/CSS named color that corresponds to the RGB portion.

File offset	index	AF	RGB he	xadecin	nal	Named Color (HTML/CSS)

Una		b	m	p
-----	--	---	---	---

Address of Leftmost Byte

				Le	ast	Sigi	nific	ant	Nib	ble	of A	\dd1	ess			
	0	1	2	3	4	5	6	7	8	9	Α	В	C	D	E	F
0000000	42	4D	FA	00	00	00	00	00	00	00	92	00	00	00	7C	00
0000010	00	00	31	00	00	00	0B	00	00	00	01	00	01	00	00	00
0000020	00	00	58	00	00	00	13	0B	00	00	13	0B	00	00	02	00
0000030	00	00	02	00	00	00	00	F8	00	00	E0	07	00	00	1F	00
0000040	00	00	00	00	00	00	42	47	52	73	00	00	00	00	00	00
0000050	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
0000060	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
0000070	00	00	00	00	00	00	00	00	00	00	02	00	00	00	00	00
0800000	00	00	00	00	00	00	00	00	00	00	80	00	00	00	FF	FF
0000090	00	00	FF	FF	FF	FF	FF	FF	80	00	FF	FF	FF	FF	FF	FF
00000A0	80	00	C6	EC	3F	82	EC	72	80	00	ВА	EΒ	BF	ΒE	EΒ	AC
00000B0	80	00	BA	EC	3F	DE	EΒ	ΑE	80	00	BA	6F	BF	ΕE	6B	ΑE
00000C0	80	00	BA	9C	6D	F6	9C	6E	80	00	BB	FF	EΑ	FΑ	FF	FF
00000D0	80	00	BB	FF	F6	82	FF	FF	80	00	FF	FF	FF	FF	FF	FF
00000E0	80	00	FF	FF	FF	FF	FF	FF	80	00						

