**Representing Images**

Use the 8 x 8 grid below to draw an image using only **black and white**. Colour depth = **1 (21 = 2)**

***Image***

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Now convert the above image into binary. Black = 0, White = 1

**Binary**

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**Representing Images**

Use the 8 x 8 grid below to draw an image using only **4** colours. Colour depth of **2 (22 = 4)**

***Image***

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Now convert the above image into binary. E.g. Black = 00, White = 11, Red = 10, Blue = 01

**Binary**

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**Representing Images**

Use the 8 x 8 grid below to draw an image using only **8** colours. Colour depth of **3 (23 = 8)**

***Image***

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Now convert the above image into binary. E.g. Black = 000, White = 111, Red = 101, Blue = 011, Green = 010, Purple = 100, Orange = 001, Pink = 110

**Binary**

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**Examples**

Colour depth of **1**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 1 | 1 | 1 | 1 | 1 | 0 |
| 0 | 1 | 1 | 1 | 1 | 1 | 0 |
| 0 | 1 | 1 | 1 | 1 | 1 | 0 |
| 0 | 1 | 1 | 1 | 1 | 1 | 0 |
| 0 | 1 | 1 | 1 | 1 | 1 | 0 |
| 0 | 1 | 1 | 1 | 1 | 1 | 0 |

Colour depth of **2**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 00 | 00 | 00 | 00 | 00 | 00 | 00 |
| 00 | 11 | 11 | 11 | 11 | 11 | 00 |
| 00 | 11 | 10 | 10 | 10 | 11 | 00 |
| 00 | 11 | 10 | 01 | 10 | 11 | 00 |
| 00 | 11 | 10 | 01 | 10 | 11 | 00 |
| 00 | 11 | 10 | 01 | 10 | 11 | 00 |
| 00 | 11 | 10 | 01 | 10 | 11 | 00 |

Colour depth of **4**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 000 | 001 | 010 | 011 | 100 | 101 | 101 |
| 001 | 001 | 010 | 011 | 100 | 101 | 101 |
| 010 | 010 | 010 | 011 | 100 | 101 | 101 |
| 011 | 011 | 011 | 011 | 100 | 101 | 101 |
| 100 | 100 | 100 | 100 | 100 | 101 | 101 |
| 110 | 110 | 110 | 110 | 110 | 111 | 111 |
| 110 | 110 | 110 | 110 | 110 | 111 | 111 |