Name:

Exam Style Questions

Binary

Corbettmaths

Equipment needed: Pen

Guidance

1. Read each question carefully before you begin answering it.
2. Check your answers seem right.
3. Always show your workings

Video Tutorial

www.corbettmaths.com/contents

Video 398

Answers and Video Solutions

1. Write the binary number 101 as a decimal number.

4 2 1

1 0 1

4+1 = 5

5

.....

(1)

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2. Write the binary number 1010 as a decimal number.

8 4 2 1

1 0 1 0

8+2 = 10

10

.....

(1)

---

3. Write the binary number 1100 in decimal form.

8 4 2 1

1 1 0 0

8+4 = 12

12

.....

(1)

4. Write the binary number 1011 in decimal form.

8 4 2 1

1 0 1 1

8 + 2 + 1

11

.....

(1)

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5. Write the decimal number 4 as a binary number.

4 2 1

1 0 0

100

.....

(1)

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6. Write 9 as a binary number.

8 4 2 1

1 0 0 1

1001

.....

(1)

7. Write 13 as a binary number.

8 4 2 1

1 1 0 1

1101

(1)

8. Write the decimal number 14 as a binary number.

8 4 2 1

1 1 1 0

1110

(1)

9. Write the binary number 11010 as a decimal number.

16 8 4 2 1

1 1 0 1 0

16 + 8 + 2

26

(1)

10. Write the binary number 101111 as a decimal number.

32 16 8 4 2 1

1 0 1 1 1 1

32 + 8 + 4 + 2 + 1

47

.....

(1)

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11. Write the binary number 1101010 in decimal form.

64 32 16 8 4 2 1

1 1 0 1 0 1 0

64 + 32 + 8 + 2

106

.....

(1)

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12. Write the binary number 1011010 in decimal form.

64 32 16 8 4 2 1

1 0 1 1 0 1 0

64 + 16 + 8 + 2

90

.....

(1)

13. Write the decimal number 40 as a binary number.

32 16 8 4 2 1

1 0 1 0 0 0

101000

(1)

14. Write 55 as a binary number.

32 16 8 4 2 1

1 1 0 1 1 1

110111

(1)

15. Write the decimal number 62 as a binary number.

64 32 16 8 4 2 1

1 1 1 1 1 0

111110

(1)

16. Write 93 as a binary number.

64	32	16	8	4	2	1
1	0	1	1	1	0	1

1011101

(2)

17. Georgina is trying to write the number 28 as a binary number.

16	8	4	2	1
1	1	0	1	2
1	1	1	0	0

Her answer is 11012

(a) Explain why Georgina must be wrong.

The digit 2 cannot be used in binary.

(1)

(b) What is the correct answer?

11100

(1)

18. Mairéad is trying to write the number 40 as a binary number.

32	16	8	4	2
1	0	1	0	0

1?

Her answer is 10100.

Explain the mistake that Mairéad has made.

Mairéad has not included a column for 1.

(1)

(b) What is the correct answer?

32 16 8 4 2 1

1 0 1 0 0 0

101000

(1)