3.17 Missing Number (Balance the Equation): 10-minute Pack

Total Marks

GL ASSESSMENT GL-VR-11PLUS · about 10 minutes

Name: _____ Date: ____ / ____ / _____

Each question shows a number sentence with a missing value marked [ ]. Work out the value of the left-hand side and the right-hand side, then find the number that makes both sides balance (equal). Where a side has more than one step, remember the order of operations: brackets first, then multiplication and division, then addition and subtraction. Choose the option, A) to E), that gives the correct missing number. There is only one correct answer for each question.

Worked example. 8 + 7 = 9 + [ ] **Answer: 6.** Work out the left-hand side first: 8 + 7 = 15. The right-hand side must also equal 15, so 9 + [ ] = 15, which means [ ] = 15 - 9 = 6.

1 6 x 6 = 4 x [ ]

- ☐ A) 144
- ☐ B) 6
- ☐ C) 10
- ☐ D) 3
- ☐ E) 9

---

2 Find the missing number.
28 - 13 = [ ] + 13

- ☐ A) 15
- ☐ B) 1
- ☐ C) 28
- ☐ D) 3
- ☐ E) 2

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3 Find the missing number.

9 x 2 + 4 = [ ] + 4

- ☐ A) 18
- ☐ B) 17
- ☐ C) 22
- ☐ D) 26
- ☐ E) 19

---

4 Find the missing number.

33 - 10 = [ ] + 18

- ☐ A) 6
- ☐ B) 5
- ☐ C) 4
- ☐ D) 41
- ☐ E) 23

---

5 Find the missing number.

6 x 6 + 9 = [ ] + 8

- ☐ A) 38
- ☐ B) 45
- ☐ C) 37
- ☐ D) 36
- ☐ E) 53

---

6 Find the missing number.

4 + 19 = 19 + [ ]

- ☐ A) 4
- ☐ B) 23
- ☐ C) 3
- ☐ D) 42
- ☐ E) 5

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7 Find the missing number.

5 x 14 - 8 x 5 = [ ] - 6

- ☐ A) 37
- ☐ B) 35
- ☐ C) 24
- ☐ D) 36
- ☐ E) 30

---

8 Find the missing number.

8 x 7 = 2 x [ ]

- ☐ A) 27
- ☐ B) 28
- ☐ C) 29
- ☐ D) 112
- ☐ E) 56

---

9 Find the missing number.

10 - 2 = [ ] + 2

- ☐ A) 7
- ☐ B) 5
- ☐ C) 6
- ☐ D) 8
- ☐ E) 10

---

10 Find the missing number.

10 x 5 + 3 = [ ] + 8

- ☐ A) 44
- ☐ B) 53
- ☐ C) 45
- ☐ D) 61
- ☐ E) 46

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11 Find the missing number.

15 x 10 - 3 x 7 = [ ] - 6

- ☐ A) 129
- ☐ B) 123
- ☐ C) 136
- ☐ D) 134
- ☐ E) 135

---

12 Find the missing number.

420 / 6 = [ ] x 10

- ☐ A) 6
- ☐ B) 8
- ☐ C) 700
- ☐ D) 7
- ☐ E) 70

---

13 Find the missing number.

12 x 15 - 6 x 2 = [ ] - 2

- ☐ A) 170
- ☐ B) 171
- ☐ C) 169
- ☐ D) 166
- ☐ E) 168

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Mark scheme · 3.17 Missing Number (Balance the Equation): 10-minute Pack

Question 1

E) 9 - 6 x 6 = 36, so 36 / 4 = 9 **B1**

Answer: 9

Question 2

E) 2 - 28 - 13 = 15, so the missing number is the one that makes the right side 15: 2 **B1**

Answer: E) 2

Question 3

A) 18 - 9 x 2 + 4 = 22, so the missing number is the one that makes the right side 22: 18 **B1**

Answer: A) 18

Question 4

B) 5 - 33 - 10 = 23, so the missing number is the one that makes the right side 23: 5 **B1**

Answer: B) 5

Question 5

C) 37 - 6 x 6 + 9 = 45, so the missing number is the one that makes the right side 45: 37 **B1**

Answer: C) 37

Question 6

A) 4 - 4 + 19 = 23, so the missing number is the one that makes the right side 23: 4 **B1**

Answer: A) 4

Question 7

D) 36 - 5 x 14 - 8 x 5 = 30, so the missing number is the one that makes the right side 30: 36 **B1**

Answer: D) 36

Question 8

B) 28 - 8 x 7 = 56, so the missing number is the one that makes the right side 56: 28 **B1**

Answer: B) 28

Question 9

C) 6 - 10 - 2 = 8, so the missing number is the one that makes the right side 8: 6 **B1**

Answer: C) 6

Question 10

C) 45 - 10 x 5 + 3 = 53, so the missing number is the one that makes the right side 53: 45 **B1**

Answer: C) 45

Question 11

E) 135 - 15 x 10 - 3 x 7 = 129, so the missing number is the one that makes the right side 129: 135 **B1**

Answer: E) 135

Question 12

D) 7 - 420 / 6 = 70, so the missing number is the one that makes the right side 70: 7 **B1**

Answer: D) 7

Question 13

A) 170 - 12 x 15 - 6 x 2 = 168, so the missing number is the one that makes the right side 168: 170 **B1**

Answer: A) 170

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