3.17 Missing Number (Balance the Equation): 30-minute Pack

Total Marks

GL ASSESSMENT GL-VR-11PLUS · about 30 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 Find the missing number.

7 x 2 + 6 = [ ] + 7

- ☐ A) 12
- ☐ B) 20
- ☐ C) 27
- ☐ D) 14
- ☐ E) 13

---

2 Find the missing number.

33 - 15 = [ ] + 16

- ☐ A) 18
- ☐ B) 2
- ☐ C) 1
- ☐ D) 34
- ☐ E) 3

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3 Find the missing number.

(3 + 9) x (8 + 2) = [ ] x 3

- ☐ A) 360
- ☐ B) 41
- ☐ C) 40
- ☐ D) 39
- ☐ E) 120

---

4 Find the missing number.

60 / 5 = [ ] x 3

- ☐ A) 4
- ☐ B) 3
- ☐ C) 5
- ☐ D) 12
- ☐ E) 36

---

5 (2 + 3) x 4 = [ ] x 5

- ☐ A) 100
- ☐ B) 4
- ☐ C) 1
- ☐ D) 3
- ☐ E) 5

---

6 Find the missing number.

80 / 4 = [ ] x 10

- ☐ A) 200
- ☐ B) 20
- ☐ C) 3
- ☐ D) 1
- ☐ E) 2

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7 Find the missing number.

(4 + 2) x (12 + 6) = [ ] x 2

- ☐ A) 55
- ☐ B) 54
- ☐ C) 216
- ☐ D) 108
- ☐ E) 53

---

8 Find the missing number.

32 - 17 = [ ] + 7

- ☐ A) 22
- ☐ B) 7
- ☐ C) 8
- ☐ D) 9
- ☐ E) 15

---

9 Find the missing number.

120 / 5 = [ ] x 8

- ☐ A) 192
- ☐ B) 4
- ☐ C) 24
- ☐ D) 3
- ☐ E) 2

---

10 Find the missing number.

8 + 12 = 8 + [ ]

- ☐ A) 11
- ☐ B) 12
- ☐ C) 28
- ☐ D) 20
- ☐ E) 13

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11 Find the missing number.

4 x 10 = 2 x [ ]

- ☐ A) 21
- ☐ B) 40
- ☐ C) 20
- ☐ D) 80
- ☐ E) 19

---

12 Find the missing number.

6 x 6 - 4 x 2 = [ ] - 9

- ☐ A) 38
- ☐ B) 28
- ☐ C) 36
- ☐ D) 37
- ☐ E) 19

---

13 Find the missing number.

11 + 6 = 3 + [ ]

- ☐ A) 17
- ☐ B) 20
- ☐ C) 13
- ☐ D) 15
- ☐ E) 14

---

14 63 / 7 = [ ] + 4

- ☐ A) 13
- ☐ B) 4
- ☐ C) 5
- ☐ D) 6
- ☐ E) 3

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15 Find the missing number.
550 / 5 = [ ] x 11

- [ ] A) 1210
- [ ] B) 110
- [ ] C) 11
- [ ] D) 10
- [ ] E) 9

---

16 Find the missing number.
10 x 8 = 8 x [ ]

- [ ] A) 10
- [ ] B) 11
- [ ] C) 80
- [ ] D) 640
- [ ] E) 9

---

17 Find the missing number.
4 + 15 = 15 + [ ]

- [ ] A) 5
- [ ] B) 3
- [ ] C) 19
- [ ] D) 34
- [ ] E) 4

---

18 Find the missing number.
(9 - 3) x 9 = [ ] x 2

- [ ] A) 108
- [ ] B) 28
- [ ] C) 27
- [ ] D) 54
- [ ] E) 26

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19 Find the missing number.

49 - 18 = [ ] + 16

- [ ] A) 31
- [ ] B) 14
- [ ] C) 16
- [ ] D) 47
- [ ] E) 15

---

20 Find the missing number.

800 / 8 = [ ] x 10

- [ ] A) 11
- [ ] B) 1000
- [ ] C) 100
- [ ] D) 10
- [ ] E) 9

---

21 Find the missing number.

(22 - 5) x 2 = [ ] x 2

- [ ] A) 17
- [ ] B) 16
- [ ] C) 18
- [ ] D) 34
- [ ] E) 68

---

22 Find the missing number.

5 x 5 + 9 = [ ] + 3

- [ ] A) 34
- [ ] B) 30
- [ ] C) 31
- [ ] D) 37
- [ ] E) 32

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23 8 x 3 - 6 = [ ] x 3

- ☐ A) 8
- ☐ B) 54
- ☐ C) 7
- ☐ D) 6
- ☐ E) 3

---

24 Find the missing number.
40 - 13 = [ ] + 9

- ☐ A) 27
- ☐ B) 18
- ☐ C) 19
- ☐ D) 36
- ☐ E) 17

---

25 Find the missing number.
10 x 10 + 4 = [ ] + 9

- ☐ A) 95
- ☐ B) 113
- ☐ C) 104
- ☐ D) 94
- ☐ E) 96

---

26 Find the missing number.
4 + 15 = 5 + [ ]

- ☐ A) 24
- ☐ B) 15
- ☐ C) 14
- ☐ D) 13
- ☐ E) 19

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27 Find the missing number.

3 x 2 = 2 x [ ]

- ☐ A) 12
- ☐ B) 2
- ☐ C) 4
- ☐ D) 3
- ☐ E) 6

---

28 Find the missing number.

25 - 5 = [ ] + 8

- ☐ A) 28
- ☐ B) 20
- ☐ C) 13
- ☐ D) 11
- ☐ E) 12

---

29 Find the missing number.

14 x 14 - 11 x 6 = [ ] - 6

- ☐ A) 136
- ☐ B) 130
- ☐ C) 124
- ☐ D) 137
- ☐ E) 135

---

30 Find the missing number.

432 / 8 = [ ] x 6

- ☐ A) 8
- ☐ B) 324
- ☐ C) 9
- ☐ D) 10
- ☐ E) 54

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31 Find the missing number.

7 + 16 = 10 + [ ]

- ☐ A) 14
- ☐ B) 12
- ☐ C) 23
- ☐ D) 13
- ☐ E) 33

---

32 Find the missing number.

252 / 6 = [ ] x 7

- ☐ A) 5
- ☐ B) 294
- ☐ C) 7
- ☐ D) 42
- ☐ E) 6

---

33 Find the missing number.

(12 + 6) x (10 + 6) = [ ] x 9

- ☐ A) 288
- ☐ B) 32
- ☐ C) 2592
- ☐ D) 33
- ☐ E) 31

---

34 Find the missing number.

12 x 10 + 8 = [ ] + 5

- ☐ A) 128
- ☐ B) 133
- ☐ C) 124
- ☐ D) 123
- ☐ E) 122

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35 Find the missing number.

21 - 2 = [ ] + 5

- ☐ A) 15
- ☐ B) 13
- ☐ C) 14
- ☐ D) 19
- ☐ E) 24

---

36 Find the missing number.

(15 + 13) x (5 + 8) = [ ] x 7

- ☐ A) 52
- ☐ B) 2548
- ☐ C) 51
- ☐ D) 364
- ☐ E) 53

---

37 Find the missing number.

3 x 7 + 8 = [ ] + 2

- ☐ A) 29
- ☐ B) 26
- ☐ C) 31
- ☐ D) 27
- ☐ E) 28

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38 Find the missing number.

32 - 13 = [ ] + 13

- ☐ A) 19
- ☐ B) 32
- ☐ C) 6
- ☐ D) 5
- ☐ E) 7

---

39 Find the missing number.

11 x 9 - 10 x 9 = [ ] - 6

- ☐ A) 14
- ☐ B) 15
- ☐ C) 3
- ☐ D) 16
- ☐ E) 9

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Mark scheme · 3.17 Missing Number (Balance the Equation): 30-minute Pack

Question 1

E) 13 - 7 x 2 + 6 = 20, so the missing number is the one that makes the right side 20: 13 **B1**

Answer: E) 13

Question 2

B) 2 - 33 - 15 = 18, so the missing number is the one that makes the right side 18: 2 **B1**

Answer: B) 2

Question 3

C) 40 - (3 + 9) x (8 + 2) = 120, so the missing number is the one that makes the right side 120: 40 **B1**

Answer: C) 40

Question 4

A) 4 - 60 / 5 = 12, so the missing number is the one that makes the right side 12: 4 **B1**

Answer: A) 4

Question 5

B) 4 - (2 + 3) x 4 = 20, so 20 / 5 = 4 **B1**

Answer: 4

Question 6

E) 2 - 80 / 4 = 20, so the missing number is the one that makes the right side 20: 2 **B1**

Answer: E) 2

Question 7

B) 54 - (4 + 2) x (12 + 6) = 108, so the missing number is the one that makes the right side 108: 54 **B1**

Answer: B) 54

Question 8

C) 8 - 32 - 17 = 15, so the missing number is the one that makes the right side 15: 8 **B1**

Answer: C) 8

Question 9

D) 3 - 120 / 5 = 24, so the missing number is the one that makes the right side 24: 3 **B1**

Answer: D) 3

Question 10

B) 12 - 8 + 12 = 20, so the missing number is the one that makes the right side 20: 12 **B1**

Answer: B) 12

Question 11

C) 20 - 4 x 10 = 40, so the missing number is the one that makes the right side 40: 20 **B1**

Answer: C) 20

Question 12

D) 37 - 6 x 6 - 4 x 2 = 28, so the missing number is the one that makes the right side 28: 37 **B1**

Answer: D) 37

Question 13

E) 14 - 11 + 6 = 17, so the missing number is the one that makes the right side 17: 14 **B1**

Answer: E) 14

Question 14

C) 5 - 63 / 7 = 9, so 9 - 4 = 5 **B1**

Answer: 5

Question 15

D) 10 - 550 / 5 = 110, so the missing number is the one that makes the right side 110: 10 **B1**

Answer: D) 10

Question 16

A) 10 - 10 x 8 = 80, so the missing number is the one that makes the right side 80: 10 **B1**

Answer: A) 10

Question 17

E) 4 - 4 + 15 = 19, so the missing number is the one that makes the right side 19: 4 **B1**

Answer: E) 4

Question 18

C) 27 - (9 - 3) x 9 = 54, so the missing number is the one that makes the right side 54: 27 **B1**

Answer: C) 27

Question 19

E) 15 - 49 - 18 = 31, so the missing number is the one that makes the right side 31: 15 **B1**

Answer: E) 15

Question 20

D) 10 - 800 / 8 = 100, so the missing number is the one that makes the right side 100: 10 **B1**

Answer: D) 10

Question 21

A) 17 - (22 - 5) x 2 = 34, so the missing number is the one that makes the right side 34: 17 **B1**

Answer: A) 17

Question 22

C) 31 - 5 x 5 + 9 = 34, so the missing number is the one that makes the right side 34: 31 **B1**

Answer: C) 31

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Question 23

D) 6 - 8 x 3 - 6 = 18, so 18 / 3 = 6 **B1**

Answer: 6

Question 24

B) 18 - 40 - 13 = 27, so the missing number is the one that makes the right side 27: 18 **B1**

Answer: B) 18

Question 25

A) 95 - 10 x 10 + 4 = 104, so the missing number is the one that makes the right side 104: 95 **B1**

Answer: A) 95

Question 26

C) 14 - 4 + 15 = 19, so the missing number is the one that makes the right side 19: 14 **B1**

Answer: C) 14

Question 27

D) 3 - 3 x 2 = 6, so the missing number is the one that makes the right side 6: 3 **B1**

Answer: D) 3

Question 28

E) 12 - 25 - 5 = 20, so the missing number is the one that makes the right side 20: 12 **B1**

Answer: E) 12

Question 29

A) 136 - 14 x 14 - 11 x 6 = 130, so the missing number is the one that makes the right side 130: 136 **B1**

Answer: A) 136

Question 30

C) 9 - 432 / 8 = 54, so the missing number is the one that makes the right side 54: 9 **B1**

Answer: C) 9

Question 31

D) 13 - 7 + 16 = 23, so the missing number is the one that makes the right side 23: 13 **B1**

Answer: D) 13

Question 32

E) 6 - 252 / 6 = 42, so the missing number is the one that makes the right side 42: 6 **B1**

Answer: E) 6

Question 33

B) 32 - (12 + 6) x (10 + 6) = 288, so the missing number is the one that makes the right side 288: 32 **B1**

Answer: B) 32

Question 34

D) 123 - 12 x 10 + 8 = 128, so the missing number is the one that makes the right side 128: 123 **B1**

Answer: D) 123

Question 35

C) 14 - 21 - 2 = 19, so the missing number is the one that makes the right side 19: 14 **B1**

Answer: C) 14

Question 36

A) 52 - (15 + 13) x (5 + 8) = 364, so the missing number is the one that makes the right side 364: 52 **B1**

Answer: A) 52

Question 37

D) 27 - 3 x 7 + 8 = 29, so the missing number is the one that makes the right side 29: 27 **B1**

Answer: D) 27

Question 38

C) 6 - 32 - 13 = 19, so the missing number is the one that makes the right side 19: 6 **B1**

Answer: C) 6

Question 39

B) 15 - 11 x 9 - 10 x 9 = 9, so the missing number is the one that makes the right side 9: 15 **B1**

Answer: B) 15

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