Answers - Missing number problems

Year: Year 1

Answer to Question 1

a. 8 − 3 = 5, so the missing number is **5**. Check: 3 + 5 = 8.
b. 10 − 5 = 5, so the missing number is **5**. Check: 5 + 5 = 10.
c. 12 − 7 = 5, so the missing number is **5**. Check: 7 + 5 = 12.
d. 9 − 4 = 5, so the missing number is **5**. Check: 5 + 4 = 9.
e. 13 − 6 = 7, so the missing number is **7**. Check: 7 + 6 = 13.

Answer to Question 2

a. 8 − 3 = 5, so the missing number is **5**. Check: 8 − 5 = 3.
b. 10 − 6 = 4, so the missing number is **4**. Check: 10 − 4 = 6.
c. 14 − 9 = 5, so the missing number is **5**. Check: 14 − 5 = 9.
d. 12 − 4 = 8, so the missing number is **8**. Check: 12 − 8 = 4.
e. 16 − 10 = 6, so the missing number is **6**. Check: 16 − 6 = 10.

Answer to Question 3

a. Add back: 5 + 4 = 9. The missing number is **9**. Check: 9 − 4 = 5.
b. Add back: 3 + 7 = 10. The missing number is **10**. Check: 10 − 7 = 3.
c. Add back: 9 + 2 = 11. The missing number is **11**. Check: 11 − 2 = 9.
d. Add back: 8 + 6 = 14. The missing number is **14**. Check: 14 − 6 = 8.
e. Add back: 12 + 5 = 17. The missing number is **17**. Check: 17 − 5 = 12.

Answer to Question 4

a. 9 − 4 = **5**. Check: 4 + 5 = 9.
b. 12 − 8 = **4**. Check: 4 + 8 = 12.
c. 15 − 9 = **6**. Check: 9 + 6 = 15.
d. 10 − 7 = **3**. Check: 10 − 3 = 7.
e. 5 + 8 = **13**. Check: 13 − 8 = 5.

Answer to Question 5

a. Add the two numbers on the left pan: start at 6 and count on 3: 7, 8, 9. So 6 + 3 = **9**, and 9 balances the other side.
b. Work out the full side first: 4 + 6 = 10. The scales balance, so 5 + ? must also

make 10. 5 + 5 = 10, so the missing number is **5**.
c. 8 is the whole and 3 is one part. Take the part away from the whole: 8 − 3 = 5. The missing number is **5**. Check: 3 + 5 = 8.

Answer to Question 6

a. Half of 8 is **4**. 4 + 4 = 8.
b. Half of 12 is **6**. 6 + 6 = 12.
c. Half of 18 is **9**. 9 + 9 = 18.
d. Half of 20 is **10**. 10 + 10 = 20.

Answer to Question 7

a. 6 + ? = 14.
b. 14 − 6 = **8** stickers.
c. 6 + 8 = 14. **Correct**.
d. 14 − 5 = **9**. Sentence: 14 − 5 = ? and the answer is 9.

Answer to Question 8

a. Start with 15 cups, take some away, and 9 are left. The number sentence is **15 − ? = 9**.
b. Find the missing number by counting on from 9 to 15: 10, 11, 12, 13, 14, 15. That is 6 steps, so the waiter took **6** cups away.
c. Put the cups back: the 9 on the tray plus the 6 taken away should make 15. 9 + 6 = **15**, so the answer is correct.
d. The waiter brings back 4 cups, so add: 9 + 4 = **13** cups on the tray now.

Answer to Question 9

a. We do not know the start, then 7 are added and the total is 16. The number sentence is **? + 7 = 16**.
b. Take the 7 added marbles away from 16: 16 − 7 = **9**. Omar had 9 marbles to start with. Check: 9 + 7 = 16.
c. He starts with 16, loses some and has 10 left. The number sentence is **16 − ? = 10**.
d. Count back from 16 to 10: 15, 14, 13, 12, 11, 10. That is 6 steps, so he lost **6** marbles. Check: 16 − 6 = 10.

Answer to Question 10

a. 8 − 5 = **3** goals.
b. ? + 7 = 12.
c. 12 − 7 = **5** goals.
d. The Reds scored 5 and the Blues scored 5. **Neither**: they scored the same.

Answer to Question 11

a. 10 − 6 = **4** apples.
b. 10 − 3 = **7** pieces of fruit.
c. ? = 6 − 3. (Start with 6 pears and take 3 away.)
d. 6 − 3 = **3** pears.

Answer to Question 12

a. 17 cars, some are sold and 8 are left. The number sentence is **17 − ? = 8**.
b. Count on from 8 to 17: 2 steps to 10, then 7 more to 17. 2 + 7 = 9, so **9** cars were sold. Check: 17 − 9 = 8.
c. There are 8 cars, the shop gets some more, and then there are 13. The number sentence is **8 + ? = 13**.
d. Count on from 8 to 13: 9, 10, 11, 12, 13. That is 5 steps, so the shop got **5** cars. Check: 8 + 5 = 13.

Answer to Question 13

a. Hana is 7, so there are 7 candles in all. 3 are in the pink box and we do not know the blue box: **3 + ? = 7**.
b. Count on from 3 to 7: 4, 5, 6, 7. That is 4 steps, so there are **4** candles in the blue box. Check: 3 + 4 = 7.
c. Her brother is 5, so there are 5 candles. One box has 2: **2 + ? = 5**.
d. Count on from 2 to 5: 3, 4, 5. That is 3 steps, so the second box has **3** candles. Check: 2 + 3 = 5.

Answer to Question 14

a. 9 + 1 = 10. So ? + 5 = 10, and ? = **5**.
b. 6 + 4 = 10. So ? + 3 = 10, and ? = **7**.
c. 12 − 2 = 10. So 4 + ? = 10, and ? = **6**.
d. 7 + 7 = 14. So 20 − ? = 14, and ? = **6**.

Answer to Question 15

a. ? + 4 = 11.
b. 11 − 4 = **7** coins.
c. 6 + 4 = 10, not 11. So her brother is **wrong**. Lily had 7 coins.
d. 11 − 3 = **8** coins.

Answer to Question 16

a. 13 − 6 = **7**.
b. 13 − 5 = **8**.
c. 8 pairs with 5, and 7 pairs with 6.
d. 6 + ? = 13 (? = 7) and 5 + ? = 13 (? = 8).

Answer to Question 17

a. 20 − ? = 11.
b. 20 − 11 = **9** cherries.
c. 11 − 5 = **6** cherries.
d. 9 + 5 = **14** cherries. Check: 20 − 14 = 6.

Answer to Question 18

a. There were 20 books, some went home and 12 are left. The number sentence is **20 − ? = 12**.
b. Count on from 12 to 20: 8 steps (13, 14, 15, 16, 17, 18, 19, 20). So **8** books were taken home. Check: 12 + 8 = 20.
c. The librarian adds 6 books: 12 + 6 = **18** books on the shelf.
d. **No**, she is not right. There are 18 books, and 18 is less than 20 because it comes before 20 when we count. There are 2 fewer than 20.

Answer to Question 19

a. 10 − 3 = **7**.
b. A is 7. B + 7 = 12, so B = 12 − 7 = **5**.
c. C − 5 = 2, so C = 5 + 2 = **7**.
d. 7 + 5 + 7 = **19**.

Answer to Question 20

a. 5 + 9 = 14. This is the only pair of different cards: **5 and 9**.
b. 2 + 11 = 13, which is not 14. They make **13**.
c. The cards **2, 7 and 11** have no partner. (2 would need 12, 7 would need another 7, 11 would need 3.)
d. 7 + 9 = **16**.