Answers - Addition and subtraction within 20

Year: Year 1

Answer to Question 1

a. 2 + 3 = **5**. Check: 2 and 3 more is 3, 4, 5.
b. 5 + 4 = **9**. Start on 5, count on 4: 6, 7, 8, 9.
c. 6 + 6 = **12**. This is a double: 6 and 6.

Answer to Question 2

a. Start on 7 and hop 5. **7 + 5 = 12**.
b. Start on 8 and hop 6. **8 + 6 = 14**.
c. Start on 9 and hop 3. **9 + 3 = 12**.
d. Start on 4 and hop 9. **4 + 9 = 13**.
e. Start on 6 and hop 7. **6 + 7 = 13**.

Answer to Question 3

a. The ten frame has 6 counters and 4 empty spaces. 6 + **4** = 10.
b. 3 + **7** = 10.
c. **2** + 8 = 10.
d. 10 − 4 = **6**.
e. 10 − 9 = **1**.

Answer to Question 4

a. There are 7 counters. Cross out 2 of them and count the ones that are left: 1, 2, 3, 4, 5. The number sentence is 7 − 2 = **5**.
b. Start with 10 counters and cross out 4. Count back from 10: 9, 8, 7, 6. The number sentence is 10 − 4 = **6**.
c. There are 12 counters. Cross out 5 and count what is left: 7 counters. The number sentence is 12 − 5 = **7**. Check with an addition: 7 + 5 = 12.

Answer to Question 5

a. Start on 15 and count back 3. **15 − 3 = 12**.
b. Start on 18 and count back 5. **18 − 5 = 13**.

c. Start on 13 and count back 6. **13 − 6 = 7**.
d. Start on 20 and count back 8. **20 − 8 = 12**.
e. Start on 11 and count back 9. **11 − 9 = 2**.

Answer to Question 6

a. 9 + 3 = 12, **12 − 3 = 9**, **12 − 9 = 3**.
b. 5 + 8 = 13, **13 − 5 = 8**, **13 − 8 = 5**.
c. 7 + 8 = 15, 8 + 7 = 15, **15 − 8 = 7**.

Answer to Question 7

a. Add: 8 + 7. Bridge through 10: 8 + 2 = 10, then 10 + 5 = 15. **15 cakes**.
b. **8 + 7 = 15**.
c. 15 − 5 = **10 cakes**.
d. 10 + 4 = **14 cakes**.

Answer to Question 8

a. 9 + 6 = **15** marbles.
b. 15 − 4 = **11** marbles.
c. 11 + 3 = **14** marbles.
d. 14 is less than 15, so **fewer** marbles. He has 1 fewer.

Answer to Question 9

a. 12 − 5 = **7** ducks.
b. 7 + 3 = **10** ducks.
c. **12 − 5 = 7** and **7 + 3 = 10**.
d. Start 12, end 10. 12 is bigger, so there are **fewer** ducks at the end.

Answer to Question 10

a. 11 + 8 = **19** books.
b. 11 − 6 = **5** books.
c. Blue 8 and red 5. 8 − 5 = **3** more on the blue shelf.
d. 5 + 9 = **14** books.

Answer to Question 11

a. Her friend gives her more, so we add: 13 + 5. Count on 5 from 13: 14, 15, 16, 17, 18. Priya has **18** stickers.
b. Giving away means taking away: 18 − 7. Take 8 to reach 10, then put 1 back: 18 − 7 = **11** stickers.
c. A new pack adds 4: 11 + 4 = **15** stickers.
d. 15 is bigger than 13. To find how many more, count on from 13 to 15: 14, 15. That is 2 steps, so she ends with **2 more** than she started with.

Answer to Question 12

a. Add the red and the green carriages: 6 + 9. Start at 9 and count on 6: 10, 11, 12, 13, 14, 15. The train has **15** carriages.
b. Zak takes 3 carriages off, so we subtract: 15 − 3 = **12** carriages left.
c. Compare 12 and 10. 12 comes after 10 when we count, so 12 is bigger. **Zak's train** has more carriages now.
d. Find the difference by counting on from 10 to 12: 11, 12. That is 2 steps, so Zak's train has **2 more** carriages.

Answer to Question 13

a. Fruit means the apples and the bananas: 7 + 4. Count on from 7: 8, 9, 10, 11. There are **11** pieces of fruit.
b. They eat 6 of the 9 sandwiches: 9 − 6 = **3** sandwiches left.
c. They eat 5 of the 7 apples: 7 − 5 = **2** apples left.
d. Add what is left of both foods: 3 sandwiches + 2 apples = **5** things left. The bananas and the cake are not part of this question.

Answer to Question 14

a. Add the two flavours sold at lunch: 9 + 8. Make 10 first: 9 + 1 = 10, then 10 + 7 = 17. So **17** ice creams are sold at lunchtime.
b. Add the 6 sold in the afternoon: 17 + 6. Make 20 first: 17 + 3 = 20, then 20 + 3 = 23. **23** ice creams are sold altogether.
c. The van started with 30. Take away the 23 sold: count on from 23 to 30, that is 7 steps. **7** ice creams are left. Check: 23 + 7 = 30.
d. 23 is less than 25, because 23 comes before 25 when we count. So **yes**, she is right: they sold fewer than 25.

Answer to Question 15

a. 14 − 6 = **8**.
b. 8 + 3 = **11**.
c. 11 − 5 = 6, then 6 + 8 = **14**.
d. Start 14, end 14. The bus is **just as full**: the same number.

Answer to Question 16

a. 4 + 9 = 13, 5 + 8 = 13, 6 + 7 = 13. There are **three pairs**: (4, 9), (5, 8) and (6, 7).
b. The smallest cards are 4 and 5. 4 + 5 = **9**.
c. The biggest are 8 and 9. 8 + 9 = **17**.
d. 4 + 6 = 10. **Yes**: the 4 and the 6.

Answer to Question 17

a. 8 + 5 = 13, so **wrong**. He should write 13.
b. 14 − 6 = 8, so **right**.
c. 9 + 9 = 18, so **right**. It is a double.
d. 15 − 7 = 8, so **wrong**. He should write 8.

Answer to Question 18

a. 8 + 7 = **15** toys.
b. 20 − 15 = **5** toys.
c. 20 − 15 = 5. Check: 15 + 5 = 20. **Correct**.
d. The third bag has 5 toys and the first bag has 8 toys. 5 is less than 8, so the third bag is **less full**.

Answer to Question 19

a. 14 − 6 = **8**. Check: 8 + 6 = 14.
b. 13 − 5 = **8**. Check: 13 − 8 = 5.
c. C and C is a double. Half of 16 is **8**. Check: 8 + 8 = 16.
d. D and D make 12, so D is **6**. Check: 12 − 6 = 6.

Answer to Question 20

a. 3 + 6 = 9 and 4 + 5 = 9. The pairs are **(3, 6) and (4, 5)**.

b. The number **2** has no partner. 2 needs 7.
c. 3 + 6 = 9, so the other number is **6**.
d. 5 + 6 = 11 is the only pair. **(5, 6)**.