

Grade 8 · Two-Way Tables · Test Answer Key

Common Core 8.SP.A.4 · mathovore.fr

This answer key gives the worked solution and the scoring guide for each of the nine test questions. Award partial credit as described, and accept any correct method. The total is 20 points.

Grade 8 Common Core: 8.SP.A.4

Question 1: Read the table (2 points)

(a) Row Girls, column Fruit: **27**.

(b) Column total for Chips: $32+23=55$, so **55 students**.

Scoring: 1 point for each correct value.

Question 2: Complete the table (2 points)

Has sibling and walks: $40-21=19$.

No sibling and bus: $35-21=14$.

Check: $19+26=45$ walkers.

Trip to school			
Sibling	Bus	Walk	Total
Has sibling	21	19	40
No sibling	14	26	40
Total	35	45	80

The completed table.

Scoring: 1 point for each missing value.

Question 3: Build a table (2 points)

Girls not in the club: $18-12=6$. Boys not in the club: $12-7=5$. Club total: $12+7=19$. Not in club: $6+5=11$.

Chess club			
Group	In club	Not in club	Total
Girls	12	6	18
Boys	7	5	12
Total	19	11	30

The completed table.

Scoring: 1 point for the four inner cells; 1 point for correct totals.

Question 4: Relative frequencies (3 points)

(a) $\frac{18}{50} = 36\%$.

(b) $\frac{27}{50} = 54\%$.

(c) $\frac{27}{45} = 60\%$.

Scoring: 1 point for each part. Award the point when the fraction and the percent are both correct.

Question 5: Planner and homework (3 points)

(a) Uses a planner: $\frac{40}{50} = 80\%$ yes and $\frac{10}{50} = 20\%$ no. No planner: $\frac{20}{50} = 40\%$ yes and $\frac{30}{50} = 60\%$ no.

(b) Students who use a planner are more likely to turn in all homework (80% versus 40%), so there is a **possible association**.

Scoring: 2 points for four correct percents (1 point if two or three are correct); 1 point for the association.

Question 6: Association or not? (2 points)

Grade 7: $\frac{15}{50} = 30\%$ chose hiking. Grade 8: $\frac{21}{70} = 30\%$ chose hiking.

The percents are equal, so there is **no association**.

Scoring: 1 point for both relative frequencies; 1 point for the conclusion.

Question 7: Counts or percents? (2 points)

(a) School A: $\frac{90}{150} = 60\%$. School B: $\frac{64}{80} = 80\%$.

(b) **No.** School A has more riders because it has more students. A larger share of School B students ride the bus.

Scoring: 1 point for the percents; 1 point for a correct explanation.

Question 8: Tally the responses (2 points)

Girl-Juice 3, Girl-Water 2, Boy-Juice 1, Boy-Water 4. Row totals 5 and 5; column totals 4 and 6; grand total 10.

Favorite drink			
Group	Juice	Water	Total
Girls	3	2	5
Boys	1	4	5
Total	4	6	10

The completed table.

Scoring: 1 point for the four inner cells; 1 point for correct totals.

Question 9: Choose the total (2 points)

(a) Divide by the Grade 7 row total: $\frac{42}{70} = 60\%$.

(b) Divide by the Walk column total: $\frac{32}{60} \approx 53.3\%$.

Scoring: 1 point for each correct percent with the right total.

Total
20 points