

Long Jump Competition – Answers

Adel jumped 4.54m

Zain jumped $\frac{1}{2}$ m further than Kurt.

Jana jumped 15cm further than Adel.

Janeth jumped 0.6m further than Mark.

Mahmud jumped 23cm further than Jana.

Irina jumped $\frac{3}{4}$ m further than the 2nd place child.

Shakira jumped $\frac{1}{4}$ m less than Mahmud.

Shaya jumped 0.8m further than Shakira.

Kurt jumped 0.15m less than Janeth.

Mark jumped 40mm less than Shaya.

Working and Answers

$$\text{Adel} = 4.54\text{m}$$

$$\text{Jana} = 4.54 + 0.15 = 4.69\text{m}$$

$$\text{Mahmud} = 4.69 + 0.23 = 4.92\text{m}$$

$$\text{Shakira} = 4.92 - 0.25 = 4.67\text{m}$$

$$\text{Shaya} = 4.67 + 0.8 = 5.47\text{m}$$

$$\text{Mark} = 5.47 - 0.04 = 5.43\text{m}$$

$$\text{Janeth} = 5.43 + 0.60 = 6.03\text{m}$$

$$\text{Kurt} = 6.03 - 0.15 = 5.88\text{m}$$

$$\text{Zain} = 5.88 + 0.5 = 6.38\text{m}$$

$$\text{Irina} = 6.38 \text{ (1st child so far)} + 0.75 = 7.13\text{m}$$

Position	Name	Distance (m)
1 st	Irina	7.13 m
2 nd	Zain	6.38 m
3 rd	Janeth	6.03 m
4 th	Kurt	5.88 m
5 th	Shaya	5.47 m
6 th	Mark	5.43 m
7 th	Mahmud	4.92 m
8 th	Jana	4.69 m
9 th	Shakira	4.67 m
10 th	Adel	4.54 m

Task 2

a) Average of the top three athletes.

top 3 athletes are Irina, Zain and Janeth.

$$7.13 \text{ m} + 6.38 \text{ m} + 6.03 \text{ m} = 19.54 \text{ m}$$

$$19.54 \div 3 = 6.513333 \text{ (this is rounded to 2 decimal places)} \\ = 6.51 \text{ m}$$

b) Average of the whole group of athletes.

$$7.13 \text{ m} + 6.38 \text{ m} + 6.03 \text{ m} + 5.88 \text{ m} + 5.47 \text{ m} + 5.43 \text{ m} + 4.92 \text{ m} + 4.69 \text{ m} \\ + 4.67 \text{ m} + 4.54 \text{ m} = 55.14 \text{ m}$$

$$55.14 \div 10 = 5.512 \text{ m (rounded to 2 decimal places)} \\ = 5.51 \text{ m}$$

c) The average of the top 3 athletes is more than the average of the whole group of athletes because the distances of the other athletes is less than the distances of the top three.

The number of athletes does not change the average, it's the value of their jumps that change the average.