

Q4/Q5 (Inverse Mean) Day 92 Name: _____

1. Sam must sit **6 tests**. He needs to get a **mean** (average) of **15** from the 6 tests. Below are the scores he has achieved so far.

a) What does he need to score in his **final test** to achieve a **mean** (average) of **15**? Write your answer in the space below.

Test	Score
1	14
2	12
3	8
4	17
5	20
6	_____

b) Look again at the test scores in **Q1**, including test 6. What is the **range** of test scores? Write your answer in the space below.

2. Grace must sit **5 exams**. Her **mean** (average) for the 5 exams is **35**. Below are the scores she has achieved with a blank space beside test 5.

a) What did she score in her **final test** to achieve a **mean** (average) of **35**? Write your answer in the space below.

Test	Score
1	27
2	43
3	42
4	31
5	_____

b) Look again at the test scores in **Q2**, including test 5. What is the **range** of test scores? Write your answer in the space below.

3. Ruth is running 7 races over the month. To qualify for the world championships, she needs to have a **mean** (average) **time of 24 seconds**. Below are the times she has achieved so far.

a) What does she need to run in her **final race** to achieve a **mean** (average) of **24**? Write your answer in the space below.

Race	Time
1	21
2	22
3	25
4	26
5	25
6	24
7	_____

b) Look again at the race times in **Q3**, including race 7. What is the **range** of race times? Write your answer in the space below.

4. Clare is picking up her sons from school. It takes her a **mean** (average) of **11 minutes** to get to school and back home. Below are the times she has taken so far this week.

a) How long does it take her to pick up the boys and return home on Friday if the **mean** (average) for the week is 11 minutes? Write your answer in the space below.

Day	Mins
Mon	8
Tues	9
Wed	15
Thurs	12
Fri	_____

b) Look again at the times in **Q4**, including Friday. What is the **range** of times? Write your answer in the space below.

5. Derek is walking Barney at the beach. Barney loves to chase the ball, so Derek makes sure he has a **mean** (average) of **9 throws** over the week. Below are the number of throws he has completed so far this week.

a) How many throws for Barney will he need to complete on Sunday to have a **mean** (average) of **9 throws each day**, over the full week? Write your answer in the space below.

Day	Mins
Mon	8
Tues	9
Wed	6
Thurs	5
Fri	11
Sat	4
Sun	_____

b) Look again at the number of throws in **Q5**, including Sunday. What is the **range** of the number of throws? Write your answer in the space below.

6. Jennifer must sit **6 exams**. She needs to get a **mean** (average) of **120** from the 6 tests. Below are the scores she has achieved so far.

a) What does she need to score in her **final test** to achieve a **mean** (average) of **120**? Write your answer in the space below.

Test	Score
1	140
2	123
3	99
4	104
5	132
6	_____

b) Look again at the test scores in **Q6**, including test 6. What is the **range** of test scores? Write your answer in the space below.

7. Max is driving in a car race. There are 8 races over the course of the year. To get his contract renewed he needs to have a **mean** (average) **time of 43 seconds a lap over the 8 races**. Below are the lap times he has achieved so far.

a) What average lap time does he need in his final race to have a **mean** (average) of 43 seconds to get his contract renewed? Write your answer in the space below.

Race	Time
1	62
2	36
3	47
4	42
5	50
6	49
7	45
8	_____

b) Look again at the average lap times in **Q7**, including race 8. What is the **range** of lap times? Write your answer in the space below.

8. Patrick is making different videos for his YouTube channel. It takes him a **mean** (average) of **55 minutes** to complete a video, before posting it online. Below are the times he has taken so far this week to complete 4 videos.

a) How long does it take him to make the 5th video of the week, **if the mean** (average) **video creation time was 55 minutes for the 5 videos?** Write your answer in the space below.

Video	Mins
1	41
2	59
3	63
4	34
5	_____

b) Look again at the times in **Q8**, including for the 5th video. What is the **range** of times? Write your answer in the space below.

9. Bob is playing cricket this season. **His mean (average) score this season is currently 99.** Below are his scores this season in the first 4 games.

a) What must he score in the final game to have a **mean (average)** of **100** for the 5 games? Write your answer in the space below.

Game	Score
1	107
2	82
3	96
4	111
5	_____

b) Look again at the scores in **Q9**, including game 5. What is the **range** of scores? Write your answer in the space below.

10. Michael is playing cricket this season. **His mean** (average) **score this season is currently 65**. Below are his scores this season in the first 4 games.

a) What must he score in the final game to have a **mean** (average) **of 70 for the 5 games**? Write your answer in the space below.

Game	Score
1	66
2	81
3	45
4	68
5	_____

b) Look again at the scores in **Q10**, including game 5. What is the **range** of scores? Write your answer in the space below.

11. Alan must sit **8 exams**. He needs to get a **mean** (average) **of 34** from the 8 tests. Below are the scores he has achieved so far.

a) What does he need to score in his **final test** to achieve a **mean** (average) **of 34**? Write your answer in the space below.

Test	Score
1	29
2	30
3	34
4	38
5	27
6	31
7	38
8	_____

b) Look again at the test scores in **Q11**, including test 8. What is the **range** of test scores? Write your answer in the space below.

12. Toby is driving in a go kart competition. There are 9 races over the course of the year. He needs to have a **mean** (average) **time of 60 seconds a lap over the 9 races**. Below are the average lap times he has achieved so far.

a) What average lap time does he need in his final race **to have a mean** (average) **of 60 seconds for the 9 races**? Write your answer in the space below.

Race	Time
1	81
2	77
3	75
4	68
5	66
6	63
7	52
8	50
9	_____

b) Look again at the average lap times in **Q12**, including race 9. What is the **range** of lap times? Write your answer in the space below.

Answers

- | | |
|-----------|-------|
| 1. a) 19 | b) 12 |
| 2. a) 32 | b) 16 |
| 3. a) 25 | b) 5 |
| 4. a) 11 | b) 7 |
| 5. a) 20 | b) 16 |
| 6. a) 122 | b) 41 |
| 7. a) 13 | b) 49 |
| 8. a) 78 | b) 44 |
| 9. a) 104 | b) 29 |
| 10.a) 90 | b) 45 |
| 11.a) 45 | b) 18 |
| 12.a) 8 | b) 73 |