

Identify an outlier and decide how to treat it

NAME	DATE	SCORE / 10
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1 These numbers are in order: 18, 19, 21, 22, 24, 26, 30, 37. Using the $1.5 \times \text{IQR}$ test, which value is an outlier?

- ☐ 18
 ☐ 30
 ☐ There is no outlier
 ☐ 37

2 These numbers are in order: 15, 18, 20, 21, 25, 25, 27, 41. Using the $1.5 \times \text{IQR}$ test, is 41 an outlier?

- ☐ Yes
 ☐ No

3 These numbers are in order: 36, 42, 44, 46, 48, 48, 50, 51. Using the $1.5 \times \text{IQR}$ test, is 36 an outlier?

- ☐ Yes
 ☐ No

4 These numbers are in order: 13, 36, 40, 42, 44, 47, 51, 54. Using the $1.5 \times \text{IQR}$ test, which value is an outlier?

- ☐ 13
 ☐ 36
 ☐ 54
 ☐ There is no outlier

5 Students in Grade 7 were asked how many hours they sleep each night: 10, 10, 10, 4, 8, 8, 10, 8. The answer of 4 came from a parent, not a student. What should be done with the value 4?

- ☐ Change it so that it is close to the rest
 ☐ Leave it out, since it is not from a Grade 7 student
☐ Keep it, since it is not far from the rest
 ☐ Keep it, since every answer in a survey counts

6 The list shows each runner's time in a fun run, in minutes: 17, 10, 10, 7, 7, 10, 8, 9. The runner who took 17 minutes fell and then finished the run. What should be done with the value 17?

- ☐ Keep it, since it is a real result from the run ☐ Remove it, since it is far from the rest
☐ Change it so that it is close to the rest ☐ Remove it, since it makes the mean larger
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7 The list shows each student's height, in cm: 158, 147, 155, 16, 158, 161, 161, 155. What should be done with the value 16?

- ☐ Check it first, since it is likely a mistake in the record
☐ Replace it with the mean of the other values
☐ Keep it as it is, since every value must be used ☐ Remove it, since it is the smallest value
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8 These numbers are in order: 28, 29, 31, 35, 36, 37, 39, 40, 41, 45, 46, 55. Using the $1.5 \times \text{IQR}$ test, which value is an outlier?

- ☐ 28 ☐ 46 ☐ There is no outlier ☐ 55
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9 These numbers are in order: 25, 28, 29, 31, 32, 34, 36, 39, 41, 45, 45, 60. Using the $1.5 \times \text{IQR}$ test, is 60 an outlier?

- ☐ Yes ☐ No
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10 These numbers are in order: 25, 28, 32, 35, 39, 41, 43, 66. Using the $1.5 \times \text{IQR}$ test, which value is an outlier?

- ☐ There is no outlier ☐ 43 ☐ 25 ☐ 66

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1 There is no outlier

3 No

5 Leave it out, since it is not from a Grade 7 student

7 Check it first, since it is likely a mistake in the record

9 No

2 Yes

4 13

6 Keep it, since it is a real result from the run

8 There is no outlier

10 66