

# Box Plot Worksheet

# **Statistics and Probability**

Grades 6 to 8

## Questions

1	Draw a box plot for this data set:
	Minimum: 8
	Lower quartile (Q1): 12
	Median (Q2): 19
	Upper quartile (Q3): 26
	Maximum: 32

Name:	••••••
Date:	

2 Draw a box plot for this data set: 2, 3, 5, 5, 8, 9, 10, 12, 13, 15, 18

This data set shows the ages of people at a concert:
34, 22, 27, 25, 21, 18, 30, 20, 33, 30
Create a box plot for this data.

4 Draw a box plot for this data set: Minimum: 5 Lower quartile (Q1): 9 Median (Q2): 13 Upper quartile (Q3): 17 Maximum: 25

5 Below is a list of values in a data set.
4, 6, 7, 7, 8, 10, 12, 14, 16, 19, 21
Create a box plot for this data.

6 Draw a box plot for this data set: Minimum: 4.5 Lower quartile (Q1): 9.5 Median (Q2): 20 Upper quartile (Q3): 22.5 Maximum: 30

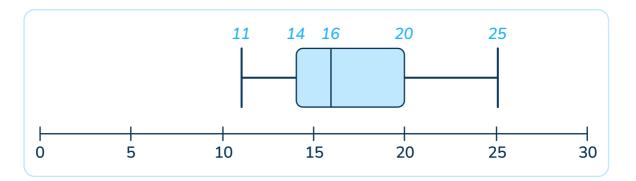
7 Draw a box plot for this data set:
2.3, 2.7, 4.2, 4.6, 7.1, 7.8, 9.4, 10.5, 12.8, 15.4, 17.5, 26.8

8 Draw a box plot for this data set: Minimum:  $6\frac{1}{4}$ Lower quartile (Q1): 8 Median (Q2):  $10\frac{3}{4}$ Interquartile range: 4 Maximum:  $13\frac{1}{2}$ 

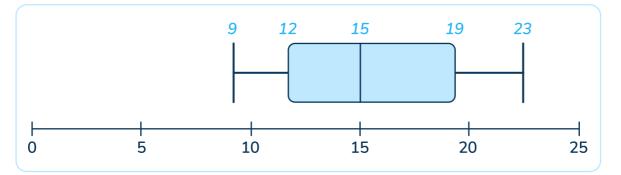
Draw a box plot for this data set:
0.09, 0.27, 0.14, 0.12, 0.16, 0.20, 0.18, 0.24, 0.14, 0.23, 0.11

10 Draw a box plot for this data set: Minimum: 30.3 Lower quartile (Q1): 30.6 Median (Q2): 30.85 Interquartile range: 0.4 Maximum: 31.2

**11** Compare the box plots below for two track teams' running times. Team A:



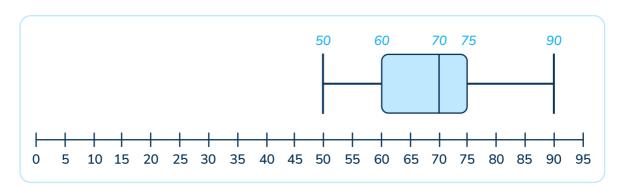
#### Team B:



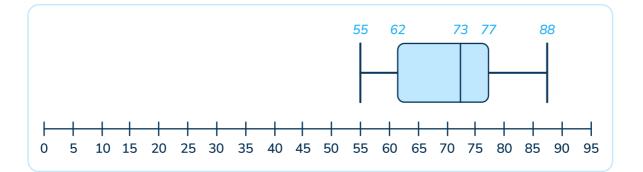
Which team has a smaller interquartile range?

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12 Two groups of students have test scores summarized in these box plots. Group X:



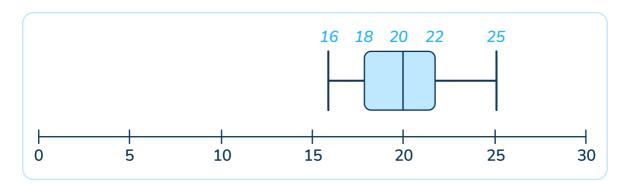
#### Group Y:



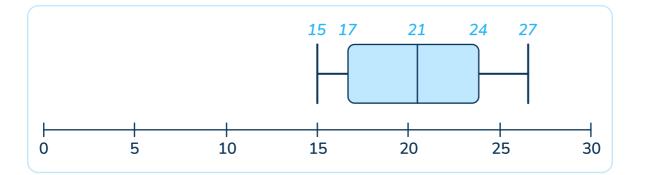
Which group has the higher median score?

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13 The box plots below show the ages of two different basketball teams. Team Red:



#### Team Blue:

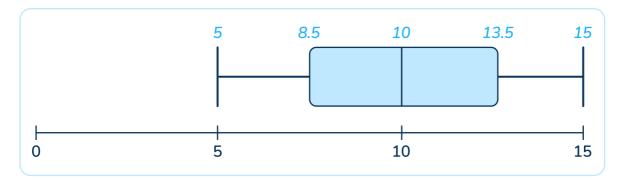


Compare the median ages.

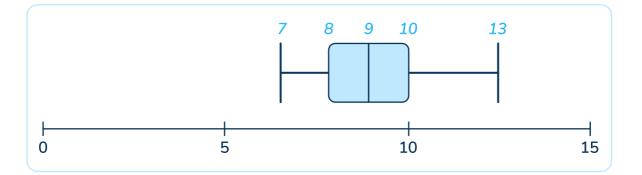
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**14** Two gyms counted their member's monthly visits.

#### Gym A:



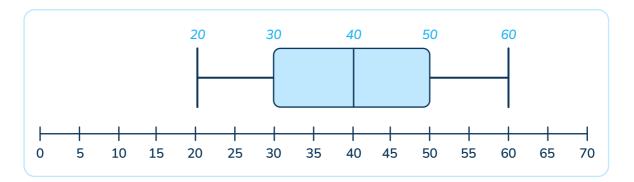
#### Gym B:



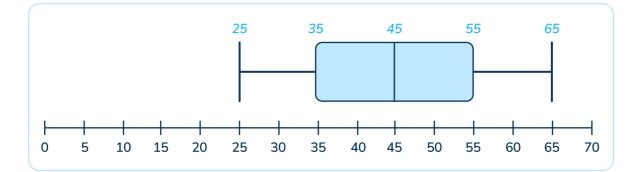
#### Which gym had less variability in gym visits overall?

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15 Look at the box plots below. Class 1:



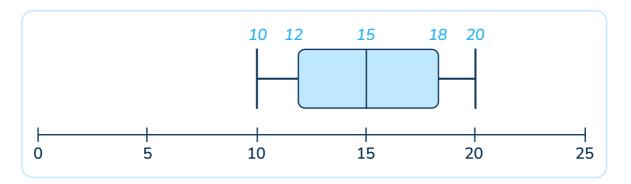
#### Class 2:



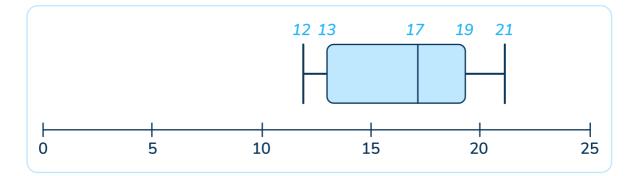
Which class had more variability in their test scores?

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16 These box plots represent weights of two dog breeds.Breed A:



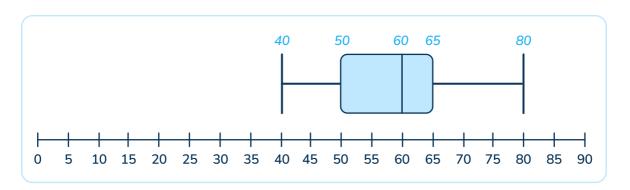
#### Breed B:



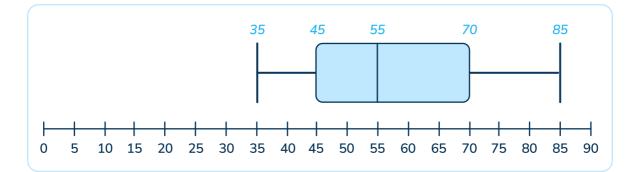
#### Which breed tends to weigh more?

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17 Compare the box plots for two classes' project scores. Class A:



#### Class B:

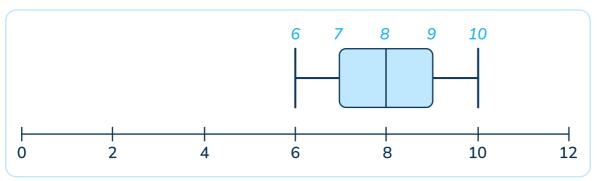


Which class has a larger interquartile range?

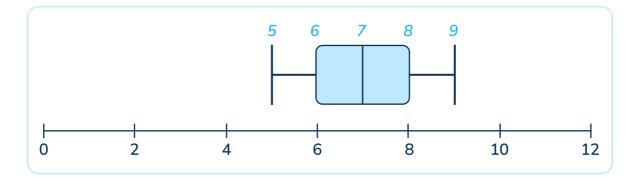
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18 The box plots below show hours of sleep for two groups, Group 1 and Group2.

#### Group 1:



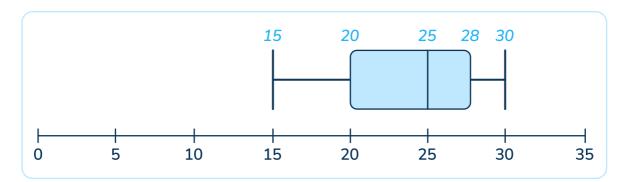
Group 2:



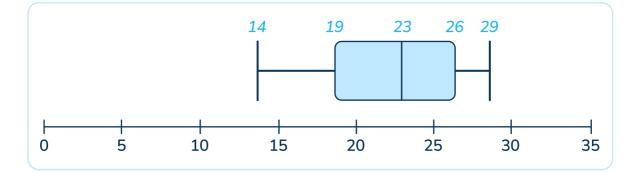
#### Which group tends to get more sleep?

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19 Two box plots show heights of plants in two gardens.Garden A:



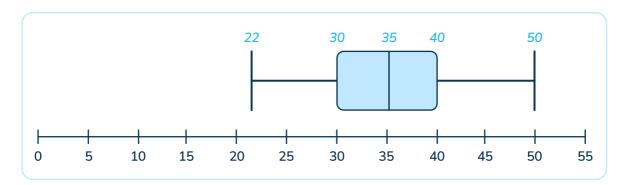
#### Garden B:



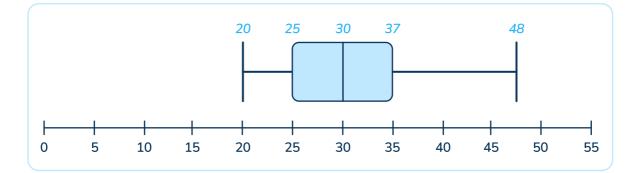
Which garden has a higher median height?

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20 These box plots represent the ages of people in two groups. Group A:



#### Group B:



#### Which group has a younger median age?

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### Answers

Question number	Question	Answers	Standard
1	Draw a box plot for this data set: Minimum: 8 Lower quartile (Q1): 12 Median (Q2): 19 Upper quartile (Q3): 26 Maximum: 32	Answer $ \underbrace{\begin{array}{c}8 & 12 & 19 & 26 & 32 \\  & & & & & \\  & & & & & \\  & & & & & $	6.SP.B.4
2	Draw a box plot for this data set: 2, 3, 5, 5, 8, 9, 10, 12, 13, 15, 18		6.SP.B.4
3	This data set shows the ages of people at a concert: 34, 22, 27, 25, 21, 18, 30, 20, 33, 30 Create a box plot for this data.		6.SP.B.4
4	Draw a box plot for this data set: Minimum: 5 Lower quartile (Q1): 9 Median (Q2): 13 Upper quartile (Q3): 17 Maximum: 25	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	6.SP.B.4
5	Below is a list of values in a data set. 4, 6, 7, 7, 8, 10, 12, 14, 16, 19, 21 Create a box plot for this data.		6.SP.B.4
6	Draw a box plot for this data set: Minimum: 4.5 Lower quartile (Q1): 9.5 Median (Q2): 20 Upper quartile (Q3): 22.5 Maximum: 30	45 85 20 225 30 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32	6.SP.B.4

Question number	Question	Answers	Standard
7	Draw a box plot for this data set: Minimum: 2.3 Lower quartile (Q1): 4.4 Median (Q2): 8.6 Upper quartile (Q3): 14.1 Maximum: 26.8		6.SP.B.4
8	Draw a box plot for this data set: Minimum: $6\frac{1}{4}$ Lower quartile (Q1): 8 Median (Q2): $10\frac{3}{4}$ Interquartile range: 4 Maximum: $13\frac{1}{2}$		6.SP.B.4
9	Draw a box plot for this data set: 0.09, 0.27, 0.14, 0.12, 0.16, 0.20, 0.18, 0.24, 0.14, 0.23, 0.11		6.SP.B.4
10	Draw a box plot for this data set: Minimum: 30.3 Lower quartile (Q1): 30.6 Median (Q2): 30.85 Interquartile range: 0.4 Maximum: 31.2	30.3 20.6 30.85 31 31.2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	6.SP.B.4

Question number	Question	Answers	Standard
11	Compare the box plots below for two track teams' running times. Team A:	Team A has a smaller interquartile range.	7.SP.B.3
	Team B:		
	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		
	Which team has a smaller interquartile range?		
12	Two groups of students have test scores summarized in these box plots. Group X:	Group Y	7.SP.B.3
	50 60 70 75 90 		
	Group Y:		
	55 62 73 77 88		
	Which group has the higher median score?		

Question number	Question	Answers	Standard
13	The box plots below show the ages of two different basketball teams. Team Red: $\int \int $	Team Blue has a higher median.	7.SP.B.3
14	Two gyms counted their member's monthly visits. Gym A: $\int \frac{5}{6} + \frac{85}{10} + \frac{10}{10} + \frac{13}{15} + \frac{15}{10} + \frac{15}{15}$ Gym B: $\int \frac{7}{6} + \frac{9}{10} + \frac{13}{10} + \frac{13}{15} + \frac{15}{15}$ Which gym had less variability in gym visits overall?	Gym B	7.SP.B.3

Question number	Question	Answers	Standard
15	Look at the box plots below. Class 1: $ \begin{array}{c}                                     $	Both have the same variability.	7.SP.B.3
16	These box plots represent weights of two dog breeds. Breed A: $\underbrace{10 \ 12 \ 15 \ 18 \ 20}_{\begin{array}{c} \hline 10 \ 12 \ 15 \ 20 \ 25 \ 20 \ 25 \ 25 \ 20 \ 25 \ 25$	Breed B	7.SP.B.3

Question number	Question	Answers	Standard
17	Compare the box plots for two classes' project scores. Class A:	Class B	7.SP.B.3
	40 50 60 65 80 40 50 60 65 80 40 50 60 65 80 40 50 50 60 65 80 40 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90		
	Class B:		
	35 45 55 70 85 		
	Which class has a larger interquartile range?		
18	The box plots below show hours of sleep for two groups, Group 1 and Group 2. Group 1:	Group 1	7.SP.B.3
	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		
	Group 2:		
	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		
	Which group tends to get more sleep?		

Question number	Question	Answers	Standard
19	Two box plots show heights of plants in two gardens. Garden A: $\underbrace{\int_{0}^{15} \int_{0}^{25} \int_{0}^{25}$	Garden A	7.SP.B.3
20	These box plots represent the ages of people in two groups. Group A: $\underbrace{\int_{0}^{22} \int_{0}^{35} \int_{0}^{40} \int_{0}^{50} \int_{0$	Group B	7.SP.B.3

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