

Grade 9 Linear Relations & Data Unit Test

Name _____ Date _____ Score _____ / 12

Part A · Slope & Linear Relations

01 Slope through $(-10, -2)$ and $(2, 5) =$ _____

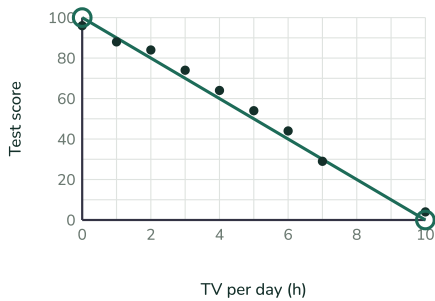
02 Slope through $(10, -6)$ and $(-7, -7) =$ _____

03 Slope through $(8, 0)$ and $(-6, 4) =$ _____

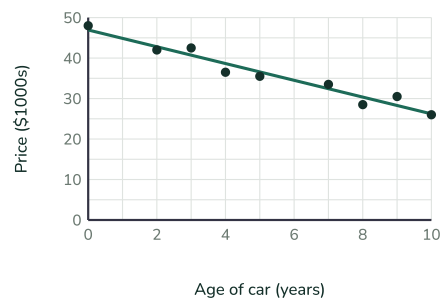
04 Slope through $(0, 4)$ and $(-8, 4) =$ _____

Part B · Scatter Plots & Best Fit

Use each scatter plot, or the equation given, to answer the question.



05 Equation of the line of best fit (through the marked points) = _____



06 Use the line of best fit to predict the price of a car 6 years old. _____

07 A line of best fit is $y = -3x + 80$, where x is hours of TV a day and y is the test score. Predict y when $x = 8$.

Answer: _____

Grade 9 Linear Relations & Data Unit Test

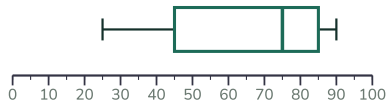
Part B • Scatter Plots & Best Fit (continued)

08 A line of best fit is $y = -6x + 95$, where x is hours of use and y is the battery left (%). Predict y when $x = 7$.

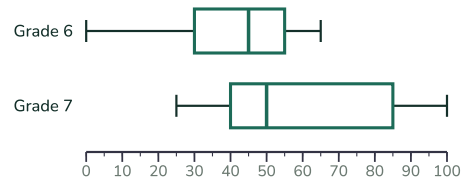
Answer: _____

Part C • Box Plots & Quartiles

Use the data list or the box plot to answer each question.



09 Median = _____



10 Which is more spread out, by IQR (minutes of reading a day)? _____

11 Daily high temperatures ($^{\circ}\text{C}$): 26, 27, 11, 25, 19, 26, 31, 6, 10, 25, 4, 20. Find the interquartile range (IQR).

Answer: _____

12 Books read this term: 19, 15, 14, 10, 14, 19, 22, 17, 18, 20, 13, 14. Give the five-number summary (min, Q1, median, Q3, max).

Answer: _____



Grade 9 Linear Relations & Data Unit Test (Answer Key)

Part A · Slope & Linear Relations

01 Slope through $(-10, -2)$ and $(2, 5) = 7/12$

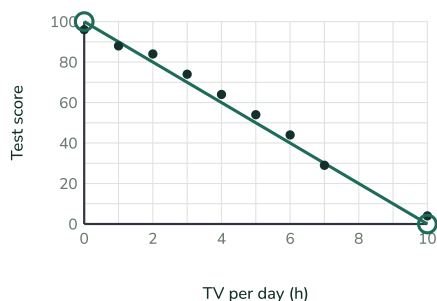
02 Slope through $(10, -6)$ and $(-7, -7) = 1/17$

03 Slope through $(8, 0)$ and $(-6, 4) = -2/7$

04 Slope through $(0, 4)$ and $(-8, 4) = 0$

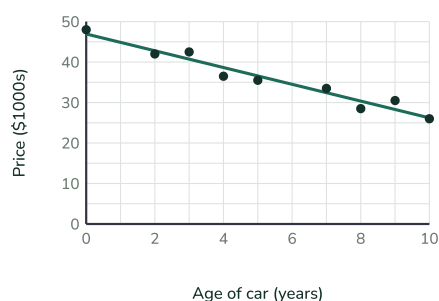
Part B · Scatter Plots & Best Fit

Use each scatter plot, or the equation given, to answer the question.



05 Equation of the line of best fit (through the marked points) =

$y = -10x + 100$



06 Use the line of best fit to predict the price of a car 6 years old.

About 35 thousand dollars

07 A line of best fit is $y = -3x + 80$, where x is hours of TV a day and y is the test score. Predict y when $x = 8$.

56

Grade 9 Linear Relations & Data Unit Test (Answer Key)

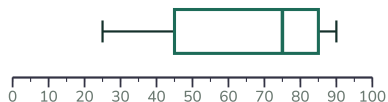
Part B • Scatter Plots & Best Fit (continued)

08 A line of best fit is $y = -6x + 95$, where x is hours of use and y is the battery left (%). Predict y when $x = 7$.

53%

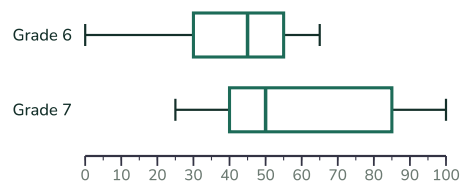
Part C • Box Plots & Quartiles

Use the data list or the box plot to answer each question.



09 Median =

75



10 Which is more spread out, by IQR (minutes of reading a day)?

Grade 7

11 Daily high temperatures ($^{\circ}\text{C}$): 26, 27, 11, 25, 19, 26, 31, 6, 10, 25, 4, 20. Find the interquartile range (IQR).

15.5

12 Books read this term: 19, 15, 14, 10, 14, 19, 22, 17, 18, 20, 13, 14. Give the five-number summary (min, Q1, median, Q3, max).

10, 14, 16, 19, 22