Task card 1 Linear & Exponential Regression fr...

Find the least-squares regression line y = mx + b for the data in the table.

x	2	3	4	5	6
y	14	15	21	27	28

Task card 2 Linear & Exponential Regression fr...

An exponential model $y = a(b)^x$ passes through (0, 100) and (2, 64). Write the model.

Task card 3 Linear & Exponential Regression fr...

A calculator gives the correlation coefficient r = 0.27 for a data set. Which describes the data? (A) a strong positive linear relationship (B) a weak positive linear relationship (C) a strong negative linear relationship (D) a weak negative linear relationship

Task card 4 Linear & Exponential Regression fr...

Use the least-squares regression line for the data to predict y when x = 6.

x	1	2	3	4	5
y	12	17	19	23	24

Task card 5 Linear & Exponential Regression fr...

Use the least-squares regression line for the data to predict y when x = 9.

x	2	3	4	5	6
y	6	12	15	20	22

Task card 6 Linear & Exponential Regression fr...

Use the least-squares regression line for the data to predict y when x = 6.

x	1	2	3	4	5
y	-1	3	4	7	7

Task card 7 Linear & Exponential Regression fr...

Find the least-squares regression line y = mx + b for the data in the table.

x	3	4	5	6	7
y	3	5	3	7	7

Task card 8 Linear & Exponential Regression fr...

Find the least-squares regression line y = mx + b for the data in the table.

x	1	2	3	4	5
y	9	11	16	19	25

Task card 9 Linear & Exponential Regression fr...

Find the least-squares regression line y = mx + b for the data in the table.

x	3	4	5	6	7
y	4	2	7	4	8

Task card 10 Linear & Exponential Regression fr...

Use the least-squares regression line for the data to predict y when x = 9.

x	2	3	4	5	6
y	17	17	13	15	13

Task card 11 Linear & Exponential Regression fr...

The least-squares line for the data is y = -3x + 26. Find the residual for the point where x = 5.

x	1	2	3	4	5
y	24	18	17	16	10

Task card 12 Linear & Exponential Regression fr...

An exponential model $y = a(b)^x$ passes through (0, 16) and (1, 24). Write the model.

Task card 13 Linear & Exponential Regression fr...

A calculator gives the correlation coefficient r = -0.86 for a data set. Which describes the data? (A) a strong positive linear relationship (B) a weak positive linear relationship (C) a strong negative linear relationship (D) a weak negative linear relationship

Task card 14 Linear & Exponential Regression fr...

An exponential regression for the number of app downloads in thousands after x weeks gives $y = 12(1.35)^x$. Predict y when x = 5. Round to the nearest tenth.

Task card 15 Linear & Exponential Regression fr...

A calculator gives the correlation coefficient r = -0.27 for a data set. Which describes the data? (A) a strong positive linear relationship (B) a weak positive linear relationship (C) a strong negative linear relationship (D) a weak negative linear relationship

Task card 16 Linear & Exponential Regression fr...

The least-squares line for the data is y = 4x + 4. Find the residual for the point where x = 4.

x	1	2	3	4	5
y	7	13	16	21	23

Task card 17 Linear & Exponential Regression fr...

Find the least-squares regression line y = mx + b for the data in the table.

x	2	3	4	5	6
y	3	1	1	3	7

Task card 18 Linear & Exponential Regression fr...

Use the least-squares regression line for the data to predict y when x = 8.

x	1	2	3	4	5
y	-1	5	4	11	11

Task card 19 Linear & Exponential Regression fr...

The least-squares line for the data is y = -x + 13. Find the residual for the point where x = 4.

x	3	4	5	6	7
y	11	7	10	5	7

Task card 20 Linear & Exponential Regression fr...

An exponential model $y = a(b)^x$ passes through (0, 80) and (2, 20). Write the model.

Task card 21 Linear & Exponential Regression fr...

A calculator gives the correlation coefficient r = -0.91 for a data set. Which describes the data? (A) a strong positive linear relationship (B) a weak positive linear relationship (C) a strong negative linear relationship (D) a weak negative linear relationship

Task card 22 Linear & Exponential Regression fr...

An exponential regression for the mass of a medicine in the body in mg after x hours gives $y = 400(0.72)^x$. Predict y when x = 4. Round to the nearest tenth.

Task card 23 Linear & Exponential Regression fr...

An exponential model $y = a(b)^x$ passes through (0, 6) and (3, 48). Write the model.

Task card 24 Linear & Exponential Regression fr...

An exponential regression for the value of a coin collection in dollars after x years gives $y = 800(1.06)^x$. Predict y when x = 2. Round to the nearest tenth.

Linear & Exponential Regression from Data Task Cards

Recording sheet · Grade 11 · Solve each problem. Write lines as y = mx + b and exponential models as y = a(b)^x. Round only where the problem says. For lettered choices, write the letter.

Scan to check your answers

Name: _____ Date: _____

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24

Linear & Exponential Regression from Data Task Cards: Answer Key

Grade 11 · Easy

The answers online

1. $y = 4x + 5$	**2.** $y = 100(0.8)^x$	**3.** B
4. 28	**5.** 35	**6.** 10
7. $y = x$	**8.** $y = 4x + 4$	**9.** $y = x$
10. 10	**11.** -1	**12.** $y = 16(1.5)^x$
13. C	**14.** 53.8	**15.** D
16. 1	**17.** $y = x - 1$	**18.** 21
19. -2	**20.** $y = 80(0.5)^x$	**21.** C
22. 107.5	**23.** $y = 6(2)^x$	**24.** 898.9