Scatter plots and lines of best fit worksheet – Grade 9

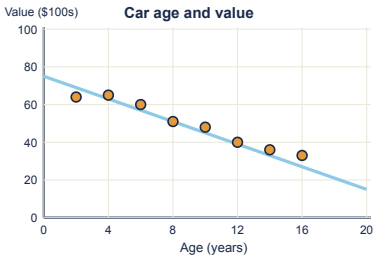
Grade 9 · Mixed level · 20 questions · **Version X2904**

Name: _____ Date: _____ Score: ___ / 20

Scan to check answers + earn stars

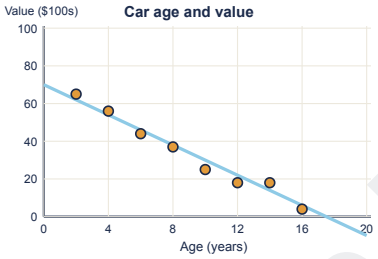
Done the worksheet? Scan the code (or enter version X2904 on this skill's page at themathmeridian.com) to check your answers online and earn stars.

1. Find the y-intercept of the line y = -3x + 75.



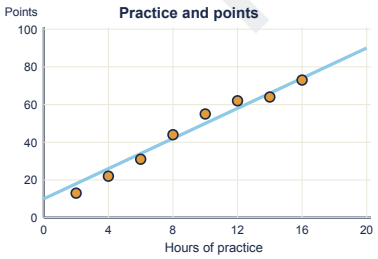
Answer: _____

2. What is the y-intercept of the line y = -4x + 70?



Answer: _____

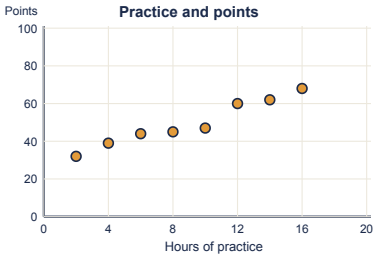
3. What is the slope of the line y = 4x + 10?



Answer: _____

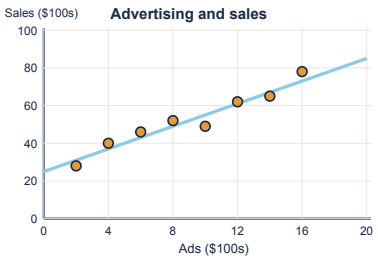
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4. What type of correlation is shown?



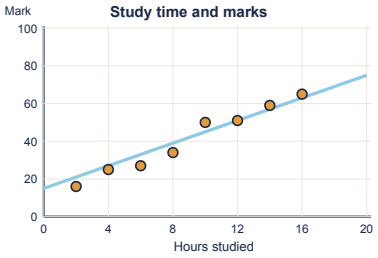
A. Positive **B.** Negative **C.** None

5. Work out the slope of the line y = 3x + 25.



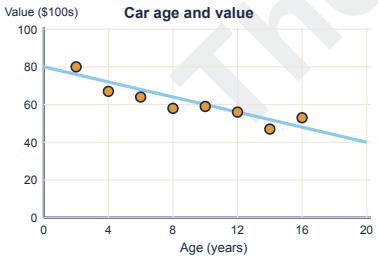
Answer: _____

6. The line of best fit is y = 3x + 15. Predict y when x = 10.



Answer: _____

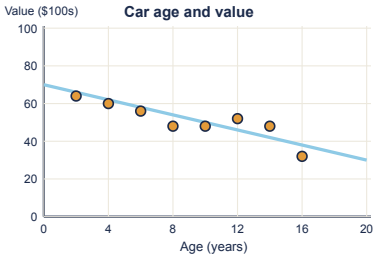
7. Work out the y-intercept of the line y = -2x + 80.



Answer: _____

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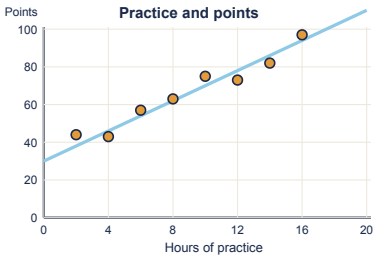
8. In this context, what does the slope of y = -2x + 70 tell you?



A. The change in value ($100s) for each unit of age (years) **B.** The starting value

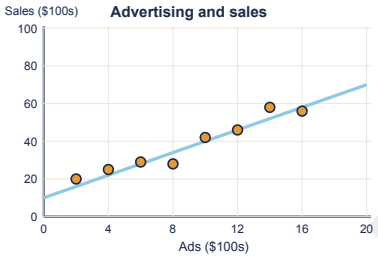
C. The total of all points **D.** The number of points

9. Which equation fits the line through (4, 46) and (12, 78)?



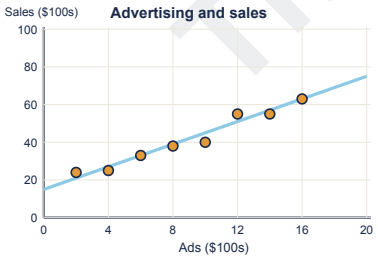
A. y = 5x + 30 **B.** y = 4x + 30 **C.** y = 4x + 35 **D.** y = -4x + 30

10. A line of best fit passes through (2, 16) and (14, 52). What is its slope?



Answer: _____

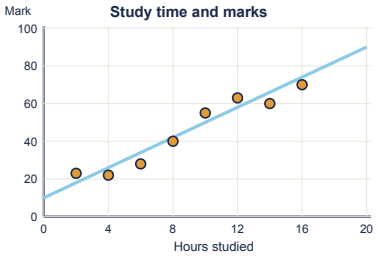
11. Using y = 3x + 15, what value of x gives y = 33?



Answer: _____

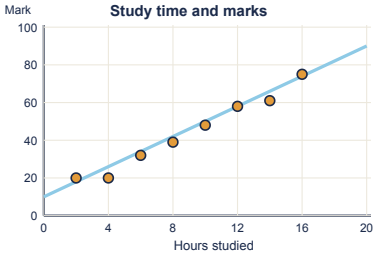
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12. Using y = 4x + 10, what value of x gives y = 58?



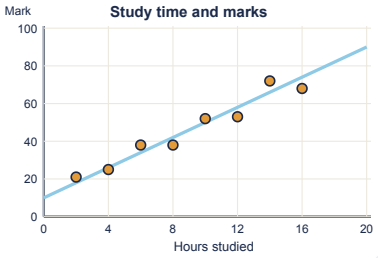
Answer: _____

13. A line of best fit passes through (2, 18) and (16, 74). What is its slope?



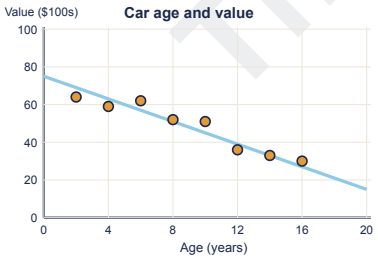
Answer: _____

14. Which equation fits the line through (4, 26) and (12, 58)?



A. y = 5x + 10 **B.** y = 4x + 15 **C.** y = -4x + 10 **D.** y = 4x + 10

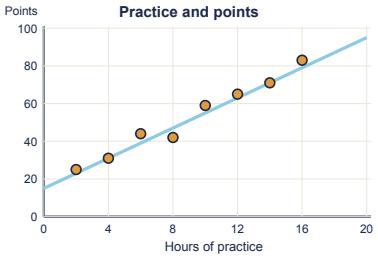
15. Using y = -3x + 75, by how much does y change when x increases by 3? Use a minus sign for a drop.



Answer: _____

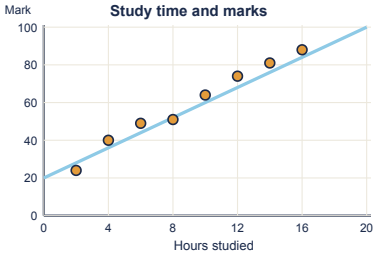
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16. A point is (18, 94), and the line is y = 4x + 15. What is the residual, actual minus predicted?



Answer: _____

17. Why is using y = 4x + 20 at x = 100 unreliable?



A. It is far outside the data **B.** x cannot be 100 **C.** The slope changes sign

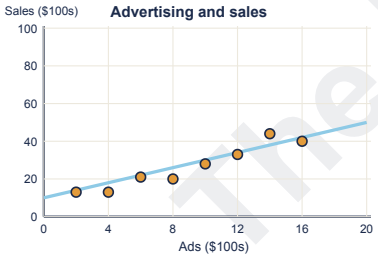
D. Lines cannot be extended

18. Sales of umbrellas and of raincoats rise together. Does one cause the other?

A. No, rainy weather affects both **B.** Yes, umbrellas cause raincoats

C. Yes, raincoats cause umbrellas **D.** They are unrelated

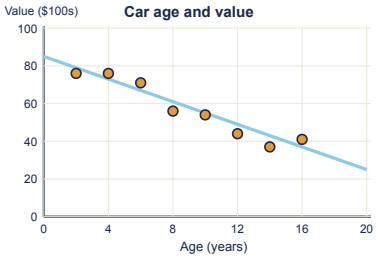
19. Using y = 2x + 10, by how much does y change when x increases by 3? Use a minus sign for a drop.



Answer: _____

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20. Why is using y = -3x + 85 at x = 100 unreliable?



A. It is far outside the data **B.** x cannot be 100 **C.** The slope changes sign

D. Lines cannot be extended

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Answer key · Version X2904

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1. **75**
2. **70**
3. **4**
4. **A (Positive)**
5. **3**
6. **45**
7. **80**
8. **A (The change in value ($100s) for each unit of age (years))**
9. **B (y = 4x + 30)**
10. **3**
11. **6**
12. **12**
13. **4**
14. **D (y = 4x + 10)**
15. **-9**
16. **7**
17. **A (It is far outside the data)**
18. **A (No, rainy weather affects both)**
19. **6**
20. **A (It is far outside the data)**

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