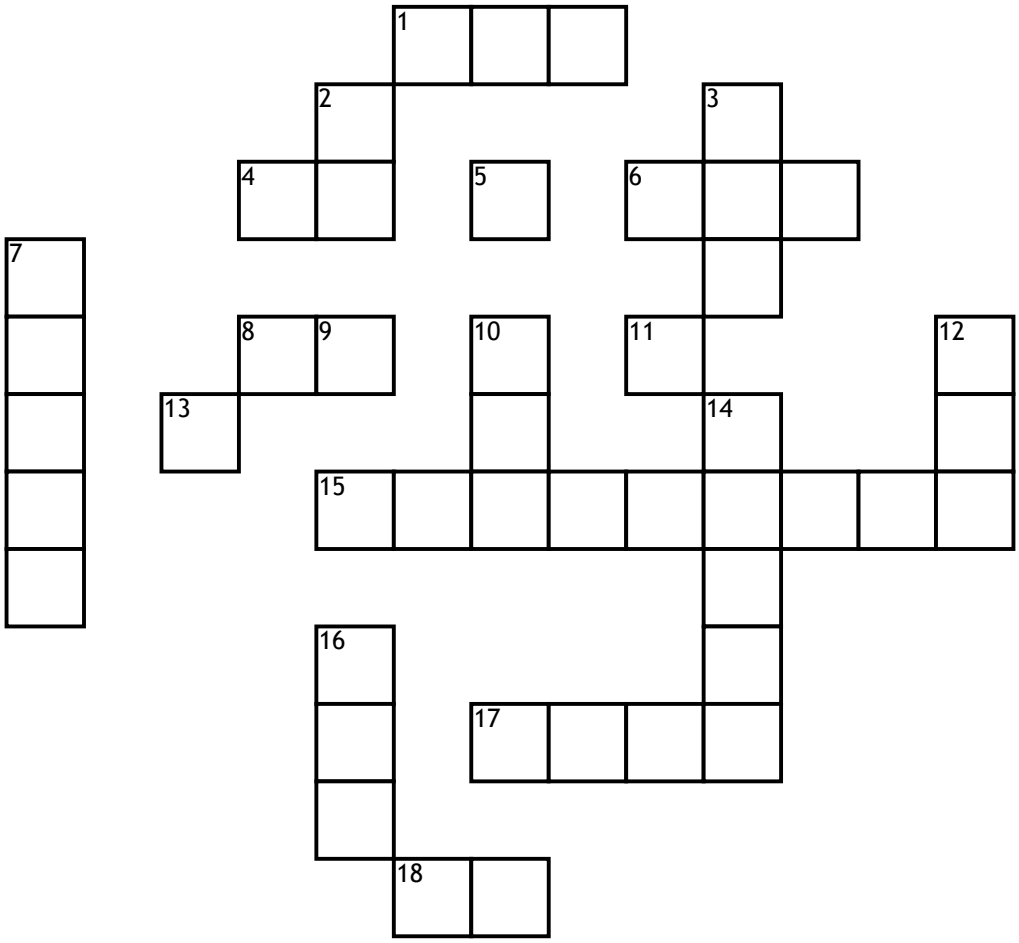
Name: _____ Date: _____

Maths!



Across

1. Calculate the area of a rectangle that has length (3sqrt10) and width (12sqrt10 - 3sqrt10)
4. Calculate the range: 3, 4, 6, 1, 8, 11, 10
6. Solve: 3x - 9 > 18
8. Calculate the angle of elevation to the top of a lighthouse if it is 30m tall and I am standing 15m away from the base. (rounded, without the degree sign))
11. Calculate the mean: 3, 5, 12, 18, 5, 7, 6
15. Find the equation of a line that is parallel to the line y = 2x + 5 and passes through (3,5)
17. True or false: These two lines are perpendicular: y = 5x + 10 and y = -1/5x - 5
18. Charlie has a mix of $1 and $2 coins in his money box. If he has a total of 30 coins and they add up to $52. Using simultaneous equations, how many $2 coins does he have?

Down

2. Sam looks up at a tree at an angle of elevation of 37 degrees. If he is 27m away from the tree, how tall is the tree? (round to the nearest whole number)
3. Solve: 4x + 5 > 8x - 7
5. The line of best fit for a scatterplot has the equation y = 1.7x + 1.45. When x has a value of 1.5, what is the predicted value for y?
7. True or false: These two lines are parallel: y = 2x + 1 and y = 4x + 5
9. Solve for x: 3x^2 + 10 = 37
10. Calculate the solution to the simultaneous equations: 1) 3x - 4y = -4 and 2) -3x + y = 10
12. Solve 5 + 2x < 7
13. Calculate the IQR: 14, 12, 10, 5, 19, 20
14. True or false: These two lines are perpendicular: y = 3x + 5 and y = -3x + 5
16. The solution to the simultaneous equations 1) 2x + y = 9 and 2) 3x - y = 1