

November Daily Tasks Days 15 - 21

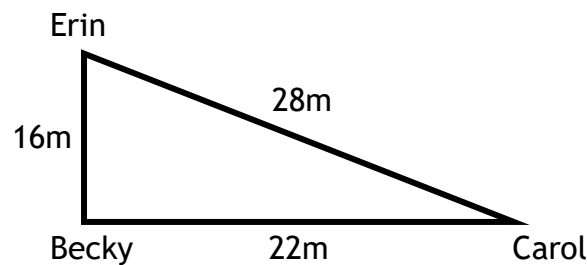
15. Solve

$$2x^2 - 5x - 3 = 0$$

Give your answer(s) correct to one decimal place.

16. A biscuit company produces approximately 6.38×10^6 biscuits per week. How many biscuits is the company expected to produce in one year? Give your answer in scientific notation, correct to 3 significant figures.

17. The position of Becky, Carol and Erin and shown below, where Erin is directly north of Becky



Is Carol standing due east of Becky? Show all your working.

18. Fully factorise $2p^2 - 72$ and hence simplify $\frac{2p^2 - 72}{2p^2 + p - 10}$.

19a. A salesperson works 6 days per week. Her travel distances for one week are recorded below, in miles.

86 66 71 77 62 58

Calculate the mean and standard deviation of this information.

19b. Her distances were recorded in the following week. The mean in week 2 was 74 and the standard deviation was 3.85.

Make two valid comparisons about her distances travelled each week.

20. State the number and nature of the roots of the function

$$f(x) = 9x^2 - 12x + 4$$

21. Express $f(x) = x^2 - 8x - 12$ in the form $(x - a)^2 + b$ and sketch the graph of $y = f(x)$, indicating the turning point and the interception with the y -axis.