

Number Nest Weekly Challenge



Warm up

1. What is $\frac{4}{9} + \frac{1}{6}$?
2. $2(a + 11) = 28$, what is **a**?
3. What is $\frac{4}{7} \div 8$?
4. How many seconds are in $2\frac{1}{6}$ hours?
5. Round $0.\overline{66}$ to 3 significant figures.
6. Rearrange the following the numbers from smallest to largest:

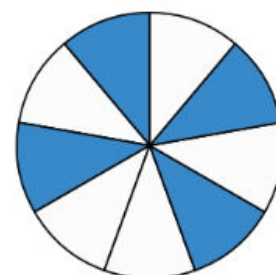
$$\frac{2}{3}, \frac{7}{2}, 2\frac{1}{2}, 0.55$$

Activity

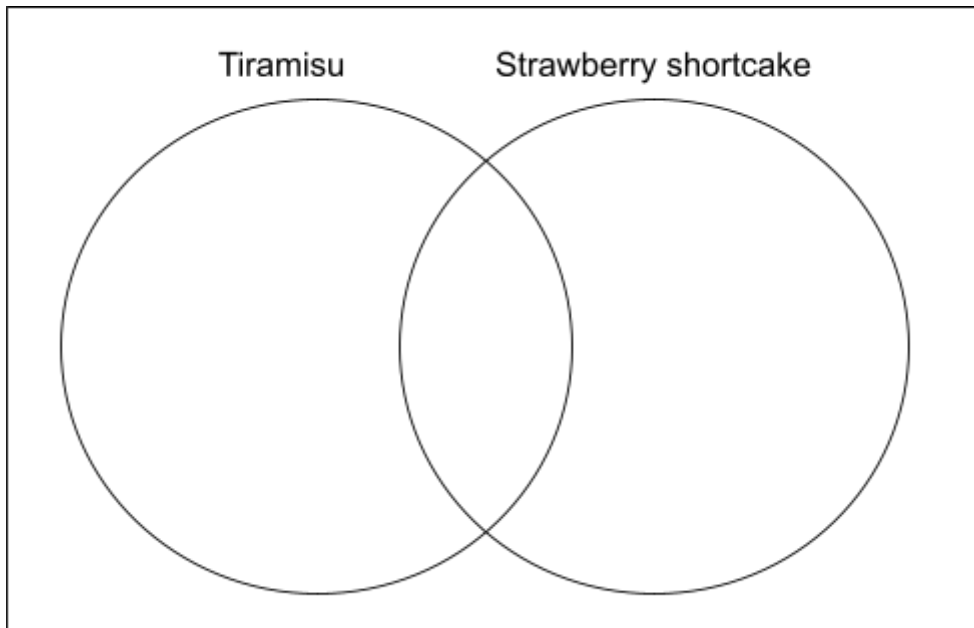
1. Every school day David uses this spinner once to try to avoid doing his homework. In a term with 65 school days, how many times would I expect to do my homework?



2. Maddie spins the spinner on the right, what is the probability that the spinner lands on blue? (bonus: what is the probability that the spinner lands on blue then white?)



3. At school with 100 pupils, 45 pupils like strawberry shortcakes, 32 pupils like tiramisu and 15 like both. Fill in the Venn diagram and answer the questions below:



Remember that some pupils won't like either dessert and the total number of pupils is 100.

- a) If a random pupil is selected, what is the probability that they like strawberry shortcake?
- b) If a random pupil is selected, what is the probability that they don't like tiramisu?
- c) If a random pupil is selected, what is the probability that they like tiramisu **and or** strawberry shortcake?
- d) If a random pupil is selected, what is the probability that they like tiramisu **but not** strawberry shortcake?
- e) Bonus: **Given** that the pupil likes strawberry shortcake, what is the probability that they also like tiramisu?

4. James tosses an unfair coin twice, the probability of landing on heads is $\frac{2}{3}$. What is the probability that he obtains a head and a tail in either order? (draw a tree diagram!)

Puzzle

Kyle got a gumball machine for his birthday. He decides to draw twice, what is the probability that he gets a red and a blue gumball?

