

Year 7 Finals 2024

Y7/1. Evaluate $-30 + -29 + -28 + -27 + \dots + 27 + 28 + 29 + 30 + 31$

Y7/2. What time is 340 minutes before 5:23 pm?

Y7/3. The sum of 3 consecutive integers is 105. Find the largest integer.

Y7/4. A $3\text{ cm} \times 3\text{ cm} \times 3\text{ cm}$ cube is painted and is then cut into small $1\text{ cm} \times 1\text{ cm} \times 1\text{ cm}$ cube.

How many faces of the $1\text{ cm} \times 1\text{ cm} \times 1\text{ cm}$ cubes are not painted?



Y7/5 If a 8-inch diameter circular pizza serves two students, how many students should two 12-inch diameter circular pizzas serve?

Y7/6 In the magic square shown, the sum of each row, column and diagonal is the same..

What is the value of **K**?

1		K	
	11	8	
		9	
16	2		13

Y7/7 A car 3m long is travelling at 20m/s and overtakes a 17m long truck travelling at 15m/s. How long, in seconds, does it take the car to overtake the truck?

Y7/8 What is the difference between the largest two digit prime and the smallest two digit prime?

Y7/9. Find the next number in the sequence:

1, 2, 5, 14, 41, _____

Y7/10. The sum of ten numbers is 2624. If one of the ten numbers is changed from 456 to 654, what is the new sum?

Y7/11. A farmer has 7 cows, 8 sheep and 6 goats. How many more goats should be brought so that half of her animals will be goats?

Y7/12 A man earns \$259 in a 7 day week, each day earning \$5 more than he had earned on the previous day. How much did he earn on the first day?

Y7/13 On her bicycle, Kara travelled 1.5 km in 3 minutes and 45 seconds. Find her average speed in km/h.

Y7/14 How many rectangles can be found in this diagram?



Y7/15 A farmyard has chickens and cows. The total number of heads is 64 and total number of legs is 158. How many chickens are in the farm?

Y7/16 A goat is tied to the corner of a 5m by 4 m shed by a 8 m rope. Assuming that the surrounding outside the shed has grass and can be grazed, what is the area that can be grazed by the goat? Use $\pi = 3$

Y7/17 Six small apples weigh the same as five medium apples. Six medium apples weigh the same as four large apples. How many small apples would weigh the same as 5 large apples?

Y7/18 A train 400m long is travelling at 20m/s. How long, in seconds, will it take to pass completely through a 1000 m tunnel?

Y7/19 Hema saved \$1420 and Malini saved \$505. After they each spent an equal amount of money, Hema had 4 times as much money as Malini. In dollars, how much did each of them spend?

7/20 A bag of apples was given to a family. The father selected $\frac{1}{5}$ of the number of apples for himself. The mother selected $\frac{1}{8}$ of the remainder and the two sons selected $\frac{1}{7}$ and $\frac{2}{3}$ of the successive remainders. The daughter took the remaining 20 apples.

How many apples were there in the bag.
