Easy Question:

* **If a car travels at a speed of 60 km/h for 4 hours, how far will it have traveled in km?**

Solution:

To calculate the distance traveled by a car, you need to multiply its speed by the time it traveled. In this case, the car traveled at a speed of 60 km/h for 4 hours. To find the distance traveled, we simply multiply the speed by the time: 60 km/h × 4 h = 240 km. Therefore, the correct answer is **240 km**.

* **A farmer harvested 109 cavans of palay from his field. If each cavan sold for ₱350, how much did he get?**

Solution:

350 \* 109 = **38150 pesos**

* **Three more than 6 times a number is 45. What is the number.**

Solution:

3 + 6(x) = 45 🡪 6x = 42 🡪 **7**

* **Erl is 3 years older than Dhang. Together, their ages total 21 years. How old is Erl?**

Solution:

**12 yrs. old** and Dhang is 9 yrs. old.

* **Joy bought 4 mangoes for ₱46. At the same rate, how much would a dozen cost?**

Solution:

46 \* 3 = **138 pesos**

* **If I multiply a number by 8 and then subtract 15 from the product, the result is 65. what is the number?** Solution:

8(x) – 15 = 65 🡪 8x = 80 🡪 **10**

* **The number which is 35 more than 47 – 19 is?**

Solution:

35 + 47 – 19 = **63**

* **Divide ₱140 among Tom, Jake, and Larry so that Tom gets twice as much as Jake and Jake gets as much as Larry. How much does Tom get?**

Solution:

x + x + 2x = 140 🡪 4x = 140 🡪 35 🡪 2(35) 🡪 **70**

* **A dozen doughnuts and a loaf of bread cost ₱75, half a dozen doughnuts and a loaf cost ₱48. How much does a loaf of bread cost?**

Solution:

12y + x = 75 , 6y + x = 48 🡪 12y + x - (6y + x) = 75 – 48 🡪 6y = 27 🡪 y = 4.5

🡪 6(4.5) + x = 48 🡪 x = 48 – 27 🡪 **21 pesos**

* **What is the next number in the sequence: 1, 3, 6, 10, \_\_?**

Solution:

The given sequence is 1, 3, 6, 10, \_\_?. By analyzing the differences between consecutive terms in the sequence, we can determine that the difference increases by 1 with each term. This indicates a quadratic pattern in which the terms increase according to the formula of the sum of the first n natural numbers. To find the next number in the sequence, we need to add the next number in the series of natural numbers to the last term in the sequence. Since the last number in the sequence is 10 and the next number in the series of natural numbers is 5, we add them to get the next term in the sequence, which is 15. Therefore, the missing number in the sequence is **15**.

Average Questions:

* **A farmer kept track of his cows and hens by counting the legs and heads. If he counted 78 legs and 35 heads, how many cows did he have?**

Solution:

Each cow has 4 legs, and each hen has 2 legs, so we can write an equation based on the total number of legs:

4c + 2h = 78

We can also write an equation based on the total number of heads:

c + h = 35

Now we can solve for c by substitution. Rearrange the second equation as h = 35 - c, and substitute this expression for h into the first equation:

4c + 2(35 - c) = 78

Simplify and solve for c:

4c + 70 - 2c = 78

2c = 8

c = 4

Therefore, the farmer has **4 cows**.

* **If 7 men can do a job in 6 days, how many men can do the work in 3 days?**

Solution:

no. of pandays per work = 42 pandays (7 x 6) no. of men = 42 pandays / 3 days = **14 men**

* **If 4 workers can finish a job in 6 hours, what hours will it take for 6 workers to finish the same job?**

Solution:

To solve the problem, we can use the formula (workers) × (time) = (work). We know that 4 workers can finish a job in 6 hours, so we can plug those values into the formula: (4 workers) × (6 hours) = (1 job). Therefore, we know that 4 workers can finish 1 job in 6 hours. Now, we need to find out how long it will take for 6 workers to finish the same job. We can again use the formula: (6 workers) × (time) = (1 job). We know that the job requires the same amount of work, so we can set the two formulas equal to each other: (4 workers) × (6 hours) = (6 workers) × (time). Solving for time, we get: time = (4 workers) × (6 hours) / (6 workers) = 4 hours. Therefore, it would take 6 workers 4 hours to finish the same job. The correct answer is **4 hours**.

* **How many positive integers less than 1000 are divisible by either 5 or 13?**

Solution:

Divide 1000 by 5 to get all numbers that are divisible by 5 and Divide 1000 by 13 to get all numbers that are divisible by 13.

1000 / 5 = 200

1000/ 13 = 76

However, we have counted some numbers twice, namely the numbers that are divisible by both 5 and 13. To find the total count of numbers that are divisible by either 5 or 13, we need to multiply 5 and 13 and subtract it from the sum of the numbers that are divisible by 5 and 13.

5 \* 13 = 65

(200 + 76) - 65 = **261**

* **Gemma can type 350 words in 5 minutes. How many words can she type in ¾ of an hour?**

Solution:

There are 60 minutes in an hour, so ¾ of an hour is equal to:

(3/4) x 60 = 45 minutes

Since Gemma can type 350 words in 5 minutes, she can type:

350/5 = 70 words per minute

Therefore, in 45 minutes, she can type:

70 x 45 = **3150 words**

* **Chester worked for 8 hours each day for 5 days. He earned P2190.00. How much did he earn per hour?**

Solution:

The total number of hours that Chester worked is:

8 hours/day x 5 days = 40 hours

To find his hourly rate of pay, we can divide his total earnings by the total number of hours worked:

Hourly rate = Total earnings / Total hours worked

Hourly rate = P2190.00 / 40 hours

Hourly rate = P54.75/hour

Therefore, Chester earned **P54.75 per hour**.

* **Nine out of 12 pupils who study their lessons in Math get high grades. If 240 pupils in a school study their lessons, how many will get low grades?**

Solution:

Percentage of students with high grades: 9/12 x 100% = 75%.

Number of students with low grades: 240 x 25% = **60**.

* **A club starts with 6 members. Beginning with the next meeting, each member is to bring 2 new members. If the procedure continues, how many will be present at the fourth meeting?**

Solution:

At the first meeting, there are 6 members present. At the second meeting, each of the 6 members will bring 2 new members, so there will be:

6 + 6 x 2 = 18 members present at the second meeting.

At the third meeting, each of the 18 members will bring 2 new members, so there will be:

18 + 18 x 2 = 54 members present at the third meeting.

At the fourth meeting, each of the 54 members will bring 2 new members, so there will be:

54 + 54 x 2 = 162 members present at the fourth meeting.

Therefore, there will be **162** members present at the fourth meeting if the pattern continues.

* **A piece of work can be done in 40 days by 25 men. After 16 days, 13 men are transferred. In how many days can the remaining men finish the work?**

Solution:

Work = 25 men x 40 days = 1000 man-days.

Work completed in 16 days = 25 men x 16 days = 400 man-days.

Remaining work = 1000 man-days - 400 man-days = 600 man-days.

Remaining men = 25 men - 13 men = 12 men.

Efficiency = 1 man-day per day.

Number of days = 600 man-days / (12 men x 1 man-day per day) = **50 days**.

* **A painter can paint a room in 12 hours. An apprentice can paint the same room in 24 hours. How long will it take them to paint the room together?**

Solution:

Work rates: Painter = 1/12, Apprentice = 1/24, Combined = 1/8.

Equation: 1/x = 1/8.

Solving for x: x = **8 hours**.

Difficult Questions:

* **Two numbers are in the ratio 5:8. If the difference is 36, what is the larger of the two numbers?**

Answer: 96

* **A train travels 60 km in ¾ hour. If it maintains the same average speed, how far will it travel in 2 ½ hours?**

Answer: 200 kilometers

* **A piece of rope 75 meters long is cut into three pieces in the ratio 4:5:6. How long is the longest piece?**

Answer: 30 meters

* **A man left home by bus at 8:15 AM and reached a town 45 km away at 9:45. What was his average speed per hour to the nearest kilometer?**

Answer: 30 km/hour

* **One man can dig a hole 2 meters x 2 meters x 2 meters in one day. At the same rate, how long will it take 3 men to dig a hole 10 meters x 6 meters x 4 meters?**

Answer: 30 days

* **There are 108 red, blue, and green marbles in a box. Four more than one-third of the marbles are red. There are 8 more green marbles in a box. Four more than one-third of the marbles are red. There are 8 more green marbles than blue marbles. How many marbles of each kind are there?**

Answer: 40 red marbles, 30 blue marbles, and 38 green marbles

* **I went to a store and spent 1/3 of my money and 5 pesos more. Then I went to a second store where I spent 3/5 of my remaining money plus 9 pesos more. I had exactly 45 pesos left. How much money had I at first?**

Answer: 63.75 pesos

* **Tom ate 100 cookies in 5 days. Each day, he ate 6 more cookies than the day before. How many cookies did he eat on each of the 5 days?**

Answer: 8 cookies on the first day, 14 cookies on the second day, 20 cookies on the third day, 26 cookies on the fourth day, and 32 cookies on the fifth day

* **A salesman has a basic salary of 4,500 pesos a month. He gets a commission of 6% of all sales above 50,000 pesos. How much did he get in a month when his sales amounted to P497,550?**

Answer: 31,353 pesos

* **Lita and Rose start jogging on a 110-meter circular track. They begin at the same point, but jog in opposite directions. Lita at 8/3 meters per second and Rose at 7/3 meters per second. Find the number of times that they will pass each other during the first 15 minutes of jogging.**

Answer: 38 times