COMPETIFY HUB

FUELING AMBITION, FORGING PATHS

MATH LEVEL 1

GRADES 1-4

PROVIDING FREE RESOURCES FOR ALL

Demo Set 2

Q11:

She found a recipe in a book that lists the following ingredients for one cake:

Ingredients:
1 Cup of Sugar
1 Cup of Milk
1 Cup of Melted Butter
2 Cups of All-Purpose Flour
3 Eggs

Mitchell decided she wanted to bake a cake that's not just one cake, but enough for a big party! She wants to make 5 cakes instead of just one.

a) If Mitchell wants to bake 5 cakes using the recipe in the book, how many cups of all-purpose flour will she need in total?

Q12:

A tray of eggs cost $12. There were 12 eggs in each tray. Jackson bought 84 eggs. How much did she pay for the eggs? Express the answer in Dollars and cents.

11a:

The Question asks for how many total cups of all-purpose flour will she need in total.

Firstly, identify how many cups of all-purpose flour for one cake.
1 Cake = 2 Cups Flour (Refer to the ingredients list)

Secondly, it asks for five cakes. So this is a question of proportion.
If 1 cake=2 cups, then 5 cakes is
5*2= 10 Cups!!

Ans: (10 Cups of All-Purpose Flour is Needed)

12a:

Identify the numbers.

1 Tray of Eggs=12$
1 Tray = 12 Eggs

With this, they asked for the price of 84 eggs.

Firstly, we need to find how many trays needed for 84 eggs
84/ 12 = 7 trays

Afterwards, find the total price of 84 eggs.

1 (tray) / 12$ = 7(tray)/x$
7*12= 84
Ans: 84$

Q13:

On the day of the report cards, Tim received his report card. Weirdly enough, he noticed in his exam score in his report card he got 76%. If his exam is out of 70. What is Tim's original score in his exam?

Q14:

A sequence of numbers starts with 5 and each subsequent number is 3 more than the previous number. What is the 10th number in the sequence?

13a:

Tim got 76% on his exam ,and the exam was out of 70 marks.
To find out what score Tim got out of 70, we need to find 76% of 70.
76% = 76/100
70*76/100 = 53.2
Ans= 53.2 out of 70

14a:

We Need to find the 10th Number
5, 5+3, 5+3+3…. Just keep on adding 3 until u reach the 10th number
To find the nth term we could, a(number) = 5 + (n - 1) * 3
5 (Starting Number)
N (number position/order)
(n -1) make n to fit the starting point of our sequence formula.
Ex: 5 + (1-1) * 3 = 5 (first number)
3 (Repeated Addition ex: +3 +3 +3)
a(10)= 5 + (10-1) * 3
= 32

Or
5 = 1ST Number
8 = 2nd
11 = 3rd
14 = 4th
17 = 5th
20 = 6th
23 = 7th
26 = 8th
29 = 9th
32 = 10th
Answer: The 10th number in the sequence is 32.

Q15:

A company has decided to take $4 dollars off of a chair that costs $50 dollars. What discount percentage should they mark on the price tag?

Q16:

An alien species uses fruit as money. 1 apple is equal to 3 bananas. 2 bananas are equal to 5 oranges. How many apples is equal to 30 oranges?

15a:

Dividing 4 by 50 gives us 0.08. Therefore, the discount amount is 8% of the total amount.

So the store should mark an 8% discount on the price tag.

16a:

What makes it hard to initially relate apples to bananas is that the banana amount isn't the same in the two equations. We can make it the same by noticing that 3 and 2 both share a common multiple of 6. If we can get the banana amount in each equation to 6, we can then compare apples to oranges accurately.

We know that 1 apple is equal to 3 bananas. Multiplying by 2 on both sides of the equation, we get that 2 apples are equal to 6 bananas. Similarly, we know that 2 bananas are equal to 5 oranges. Multiplying by 3 on both sides of the equation tells us that 6 bananas are equal to 15 oranges.

Therefore, we know that 2 apples are equal to 6 bananas which are equal to 15 oranges. Putting it in math format, we know that 2 apples = 6 bananas = 15 oranges.

The key takeaway here is that 2 apples = 15 oranges. Since we want to relate apples to 30 oranges, we multiply both sides of the equation by 2 to get that 4 apples = 30 oranges.

Q17:

Sara went apple picking with her family and collected a total of 120 apples. She decided to share her apples with friends in a unique way. She gave half of the apples to her friend Tom. Then, she gave one-third of the remaining apples to her friend Lisa. Finally, she gave one-fourth of the remaining apples that were left to her friend Emma. Sara realized that she had 10 apples left. How many apples did Sara give to each of her friends (Tom, Lisa, and Emma)?

Q18:

Max had 72 marbles. He gave ⅓ of them to Jenny and ¼ of the remaining to Sam. How many marbles does Max have left?

17a:

She started with 120 apples. Then, she gave half to Tom: 120/2=60 apples to Tom. Remaining apples= 120-60=60 apples. Afterward, she gave one-third of the remaining apples to Lisa: 60/3=20 apples to LIsa. Remaining apples=60-20=40 apples. The question also says she gave one=fourth of the remaining apples to Emma:40/4=10 apples to Emma. Remaining apples=40/10=20 apples. Tom: 60 apples. Lisa: 20 apples. Emma: 10 apples.

18a:

He gave ⅓ to Jenny: 72/3=24 (Jenny), remaining=72-24=48. Next, he gave ¼ of the remaining to Sam: 48/4=12 (Sam), remaining=48-12=36. Therefore, Max has 36 marbles left.

Q19:

Cassie's mother will be doing Cassie's junior cheerleading team's hair. She uses 30 cm of ribbon per cheerleader. The team consists of 23 cheerleaders. One roll of ribbon is 3 meters long. How many rolls of ribbon are needed for the cheerleading team and what's the length of the leftover ribbon.

Q20:

A cage holds both rabbits and chickens. If you look beneath it, you will see 36 claws and paws. If you take a look from above, you will find 13 heads. How many chickens are in the cage?

19a:

length of ribbons needed: 30*23= 690 cm —> 690/100= 6.9 m

How many rolls of ribbon needed: 6.9/3 = 2.3 —> 3 rolls of ribbon needed

length of leftover ribbon: 3*3= 9 —> 9-6.9 = 2.1 m

3 rolls of ribbon are needed and 2.1 metre long of leftover ribbon.

20a:

Rabbits have 4 paws, chickens have 2 claws.

First, let's pretend that all the animals are chickens. If so, then there would be

36/2=18 chickens. Or, in this case, heads. Then, minus 13 from 18, which means there

are 5 rabbits. 13-5=8 chickens.

Ans: 8 chickens