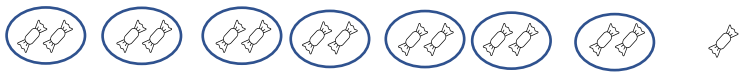
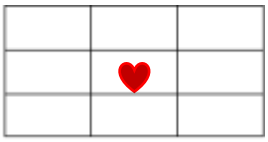
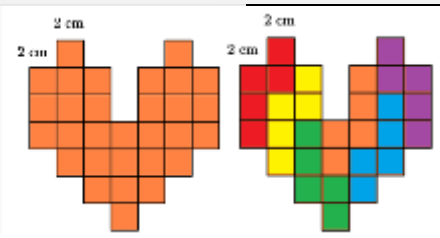
Valentine's Day and More

Kinder & First Grade: solve <u>at least</u> 3 problems.
Second & Third Grade: solve <u>at least</u> 7 problems.
Fourth Grade and above: solve <u>at least</u> 12 problems.

		Answer
1.	Mrs. Forrester bought 15 heart-shaped balloons to decorate the classroom for her class Valentine's party. While carrying them from her car to the classroom, one popped and three flew away. How many balloons are left for the class decoration? After one balloon popped, she has 15 – 1 = 14 balloons. After 3 balloons flew away, she has 14 – 3 = **11 balloons.**	*11 [balloons]*
2.	Rosanna bought a bag of mini chocolates to give out to her friends in her science club. She gave two pieces to each of her friends and had one piece of mini chocolate left over. If she has 7 friends in the science club, how many mini chocolates were in the bag? 	*15 [mini chocolates]*
3.	On the 100th day of school, Mia, Milo and Doan each brought 100 pieces of rigatoni pasta for show and tell at school. If Mia, Milo and Doan put their pasta together, how many total pieces of rigatoni pasta were there? 100 + 100 + 100 = **300**	*300*
4.	Each of the eleven students in Mrs. Zhang's class brought 3 balloons to decorate their class. Twenty of the balloons are pink and red, and the rest are white and yellow. Mrs. Zhang placed the twenty balloons that are red and pink by the entrance door, and she put the rest scattered around the classroom. How many balloons were scattered around the room? Number of balloons brought to school: 3+3+3+3+3+3+3+3+3+3+3 = 33 or 3×11 = 33. Balloons that were scattered around the classroom: 33 – 20 = **13**	*13 [balloons]*
5.	a. 12-7 = 5, February 5th, 2023 b. First Sunday is February 5, the 12, 19, 26. So 4 Sundays. c. 2023 is not a leap year, so there are 28 days. February 28th is the last day, which will fall on 26 + 2 = Sun + 2 = Tuesday.	*a. February 5th, 2023* *b. 4 [Sundays]* *c. Tuesday*
6.	There are 10 distances between 11 balloons. Since each distance is 2 feet, the distance from the first to the last balloon is 10×2 = **20 feet.** 	*20 [feet]*
7.	She uses 6 red beads in each bracelet. The number of red beads she uses: 6 × 7 = **42**	*42 [red beads]*
8.	6×20 – 120 lollipops in total. 120÷35 = 3 R15, if he is not counting himself Or 120÷36 = 3 R12, if he is counting himself for lollipops He can give at most **3 lollipops** to each student. 	*3 [lollipops]*
9.	To find the 50th day, we need to count back by 7 days. 50÷7 = 7 R1 So, the 50th day of school was on Wednesday – 1 = **Tuesday**	*Tuesday*

10.	 Make an organized list. Rectangles made from 1 rectangle with heart = 1 Rectangles made from 2 rectangles (containing heart) = 4 Rectangles made from 3 rectangles = 2 Rectangles made from 4 rectangles = 4 Rectangles made from 6 rectangles = 4 And the biggest rectangle = 1 Total number = 1 + 4 + 2 + 4 + 4 + 1 = **16**	*16 [rectangles]*
11.	Notice a pattern. Fig. 1: 1 sticker Fig. 2: 2+1 = 3 stickers Fig. 3: 3+3 = 6 stickers Fig. 4: 4+6 = 10 stickers Fig. 5: 5+10 = 15 stickers Fig. 6: 6+15 = 21 stickers  Fig. 1 Fig. 2 Fig. 3 Total: 1+3+6+10+15+21 = **56 stickers**	*56 [heart stickers]*
12.	They'll try all 5 keys on the first box. One will open it, they'll try 4 of the keys left on the next box, 3 on the next, 2 on the next, the last one will be opened with whatever key is left. 5+4+3+2+1 = **15**	*15*
13.	26×25 = **650 cards.**	*650 [cards]*
14.	LVII means 57th Super Bowl game. The first Super Bowl: 2023 – 57 + 1 = 1967. Since the first Super Bowl was in 1967. The 10th Super Bowl was held in 1967 + 9 = **1976** (9 years after 1967)**.**	*1976*
15.	A set of a bowl and a pitcher together: B + P = $21 2 bowls and 3 pitchers: 2B + 3P = $51 If we'll have three sets of bowl and pitchers: 3B + 3P = $63 Subtracting the last two relationships will bring us to the price of 1 bowl **$12.**	*$12.00 or 12 [dollars]*
16.	For the first prize it could be any of the 5 candidates, for the second place any of the 4 candidates, for the last place any of the three candidates. 5×4×3=**60 ways**	*60 [ways]*
17.	Let's work backward.  Myra got 3 cookies, which means 4 was the half that was left after Meghan took hers. So, Malia and Myra got 8 cookies. And it was 1 less than the half, so at first there were (8+1)×2 = **18 cookies.**	*18 [heart-shaped cookies]*
18.	First we need to divide the heart in such a way that each piece is congruent. The heart is made out of 30 squares. When we split it into 6 congruent pieces each one is made out of 5 squares. Using trial and error let's find how the shape is looking like. The perimeter of 1 piece: 2×12 = **24 cm**  	*24 [cm]*