

# Math Challenge #3

## SOLUTIONS



**Kinder & First Grade: solve at least 3 problems.**  
**Second & Third Grade: solve at least 6 problems.**  
**Fourth Grade and above: solve at least 12 problems.**



### Problems

### Answer

1.	Mia made 20 Halloween treat bags for her classmates. She accidentally left one at home. She then dropped 2 of the treat bags on the way walking to school. How many treat bags does she have for her class now?	17
2.	Julie and her five friends are having a Halloween party. Julie plans to serve each person (including herself) two cupcakes. How many cupcakes does she need for the party?	12
3.	Patrick has more than 12 candies but less than 21 candies in his Halloween bag. When he counts the candies in groups of two, he has one left over. When he counts them in groups of five, he has two left over. How many candies could Patrick have?	17
4.	Ron went to a candy shop with \$10 to spend. There are giant gum balls for \$2, chocolate eggs for \$3, fancy chocolate bars for \$5, and large lollipops for \$7. What could he buy with exactly \$10? List at least 3 possible ways to spend exactly \$10. Ron could buy: (1) 5 gum balls, (2) a lollipop and an egg, (3) a chocolate bar, an egg, and a gum ball (4) two chocolate bars (5) two gum balls and three chocolate eggs.	Possible lists: (1) 5 gum balls, (2) 1 lollipop and 1 chocolate egg, (3) a chocolate bar, an egg, and a gum ball (4) 2 chocolate bars
5.	Laura bought an orange balloon at the Halloween bazaar using only quarters and nickels. She paid with six coins. What could be the cost of a balloon if it is less than \$1 but more than 80 cents? 3 quarters and 3 nickels: 90 cents	90 cents or \$0.90
6.	Jeffery got a full bag of candies. When he puts an equal amount in 9 piles, he has none leftover. When he puts an equal amount in 6 piles, he has none leftover. When he puts an equal amount in 5 piles, he has 2 leftover. What is the least amount of candies Jeffrey could have? We need to find the lowest multiple of 6 and 9 that when divided by 5 will give a remainder of 2	72
7.	Ella collected 54 pieces of candies. That was 9 times as many candies as Tia collected. How many candies did Tia collected? $54 \div 9 = 6$ . Tia collected 6 candies.	6
8.	Rina expects to have 70 kids come by her house for trick or treat. She bought 3 packages of candies. Each package has 24 candies. If each kid gets 1 candy, will she have enough candies? Since $24 \times 3 = 72$ , Rina will have enough candies to give out for trick or treat.	Yes
9.	Fernando is using safety battery powered candles for his Jack-o-Lantern. One candle stays lit for 200 hours. Fernando has 3 such candles. For how many days will Fernando's Jack-o-Lantern stay lit, if he changes the candles instantly when needed? $200 \times 3 = 600$ hours of candle life $600 \div 24$ hours = 25 days	25 days



18. After going for trick or treat around the neighborhood, Larry and Kate counted their candies. Together, their total number of candies was 90. The sum of 25% of the Larry's candies and 75% of Kate's candies is 30. Find how many candies each one had.

15 and 75

*Solve this problem in pictures*



*If you'll take 4 packages of 30 candies, you'll cover all the candies for Larry and 3 sets of candies for Kate.  $120 - 90 = 30$  candies stand for two sets of Kate's treats. Kate has  $30 \div 2 = 15$  candies; Larry has  $90 - 15 = 75$  candies.*

*Solution is available on 11/3/2017 at [www.mathinaction.org](http://www.mathinaction.org)*