

1. Use trial and error.

A: Before I put in 3 dimes, the piggy bank had $23-3=20$ dimes, and $20\div4=5$, so each child put in 5 dimes.

B: Before I put in 3 dimes, the piggy bank had $24-3=21$ dimes, and 21 can't be divisible by 4.

C: Before I put in 3 dimes, the piggy bank had $25-3=22$ dimes, and 22 can't be divisible by 4.

D: Before I put in 3 dimes, the piggy bank had $26-3=23$ dimes, and 23 can't be divisible by 4.

A. 23

2. $6 = 3 \times 2$.

6633 is not divisible by 6 because it is an odd number.

D. 6633

3. $8 = 4 \times 2$ $12 = 4 \times 3$

$24=4 \times 6$, and it is the smallest number divisible by 8 and 12.

C. 24

4. The product of any two odd numbers is always odd.

C. odd

5. 7 is a prime number, as $7 = 1 \times 7$.

$1 + 7 = 8$.

C. 8

6. There are 25 letters besides letter **?**.

$25 \div 5 = 5$.

So 20 letters before **?**, and 5 letters after **?**.

A B C D **U** **V W X Y Z**

D. U

7. $37 - 22 = 15$, which equals 3 nickels.

When I double the number of nickels I have, I would then have 3 more nickels.

That means I have 3 nickels at the beginning.

A. 3



8. Sam bought twice as many as Lee. If Sam bought 18 ice pops, then Lee bought $(18 \div 2) = 9$ ice pops.

Lee bought 3 times as many as Pat, so Pat bought $(9 \div 3) = 3$ ice pops.

B. 3

9. If the bus & train are on the same side, one 2 km and one 5 km from the ice cream vendor, then the distance between the bus and train is $(5-2)$ km = 3 km.

A. 3 km B. 5 km C. 7 km D. 10 km

10. Sunday: 1

Monday: 2

Tuesday: 4

Wednesday: 8

Thursday: 16

Friday: 32

Saturday: 64

D. 64

My sunflower doubles its size 6 times. First it's 2 times, then 4 times, 8 times, 16 times, 32 times, and finally 64 times as big.

11. The digit in the tens place is three times the digit in the thousands place, so this number could be:

$(1_3_)$ or $(2_6_)$ or $(3_9_)$

The sum of the digits in the number is 27, so only

$(3_9_)$ is possible.

$27 - 3 - 9 = 15$, so the sum of the rest two digits is 15.

$15 = 7+8 = 6+9$. Since no digits in the number are repeated, so $(7+8)$ is possible.

Since this is an odd number, so it is 3897.

12. A B C D



ABCD ABDC ACBD ACDB ADBC ADCB

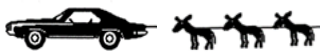
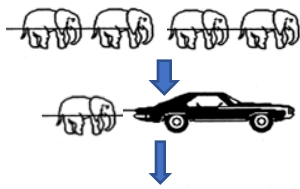
BACD BADC BCAD BCDA BDAC BDCA

CABD CADB CBAD CBDA CDAB CDBA

DABC DACB DBAC DBCA DCAB DCBA

Answer: 24 ways

13.



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A. A car and 3 donkeys

14. The computer can place an "X" on three positions.



Not win



Win



Win

The computer can win if it puts an "X" on two positions.

C. $\frac{2}{3}$