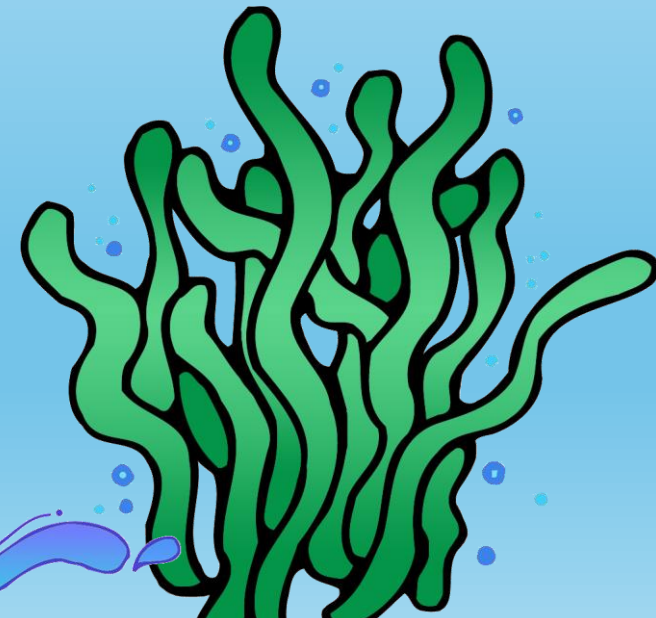
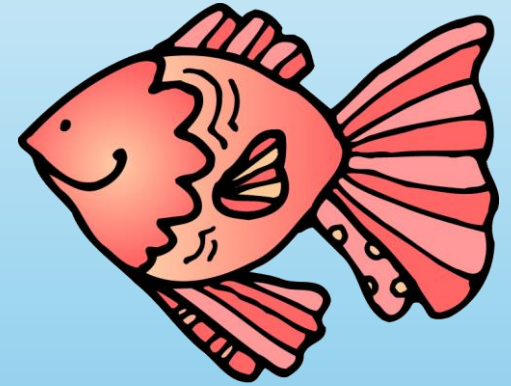


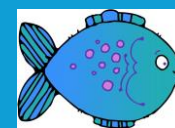
Problem Solving Strategies

- Look for a Pattern
- Draw a Picture or Diagram
- Guess and Check
- Work Backwards
- Make a Table
- Make a List
- Act it Out
- Write an Equation
- Solve an Easier Problem
- Use Estimation

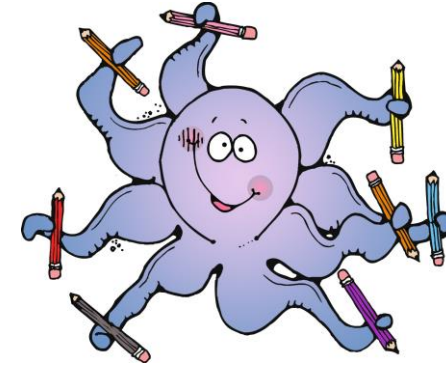


Look for a Pattern

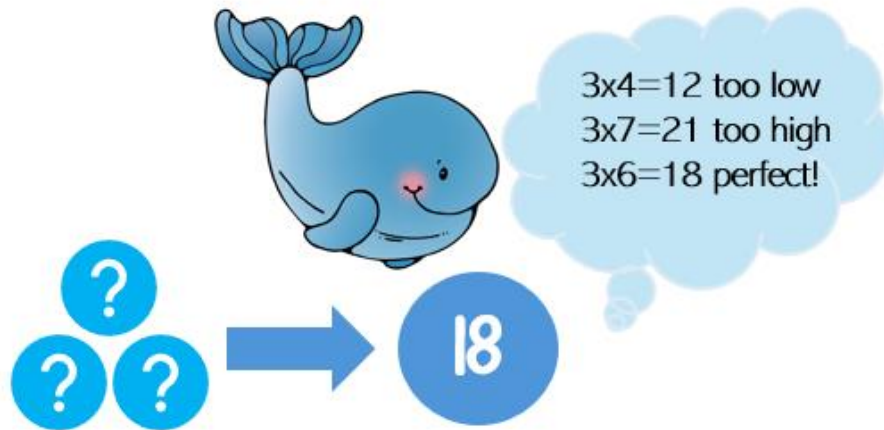
3, 6, 9, 12, 15, ?, ?



Draw a Picture or Diagram

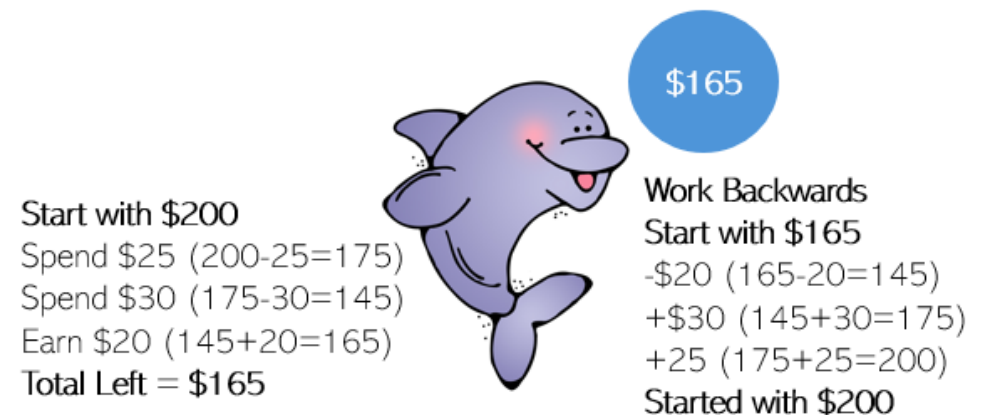


Guess and Check



A blue cartoon whale is shown. To its left, three blue circles containing question marks are arranged in a triangle, with a blue arrow pointing from them to a larger blue circle containing the number 18. A thought bubble next to the whale contains the text: $3 \times 4 = 12$ too low, $3 \times 7 = 21$ too high, and $3 \times 6 = 18$ perfect!

Work Backwards



A purple cartoon dolphin is shown. To its right, a blue circle contains the number \$165. Below the dolphin, a list of transactions is shown: Start with \$200, Spend \$25 ($200 - 25 = 175$), Spend \$30 ($175 - 30 = 145$), Earn \$20 ($145 + 20 = 165$), Total Left = \$165. To the right of the dolphin, the text 'Work Backwards' is followed by: Start with \$165, -\$20 ($165 - 20 = 145$), +\$30 ($145 + 30 = 175$), +25 ($175 + 25 = 200$), Started with \$200.

Make a Table

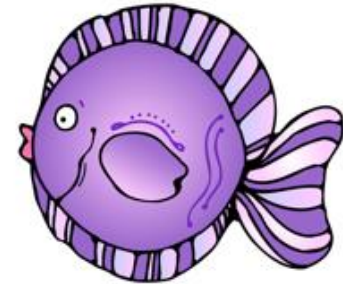


Input	The Math	Output
5	$(5 \times 2) + 3$	13
6	$(6 \times 2) + 3$	15
7	$(7 \times 2) + 3$	17
8	$(8 \times 2) + 3$	19

Make a List

How many ways can you arrange the letters A, B, C?

ABC
ACB
BAC
BCA
CAB
CBA



Act it Out

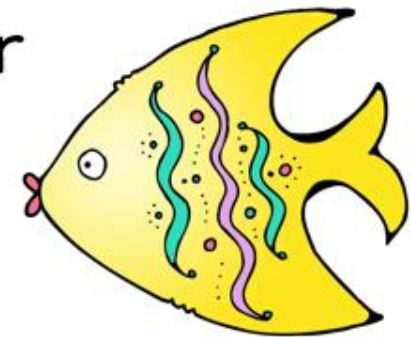
There are 4 people in the room. If each one shakes hands with one another, how many handshakes occur?



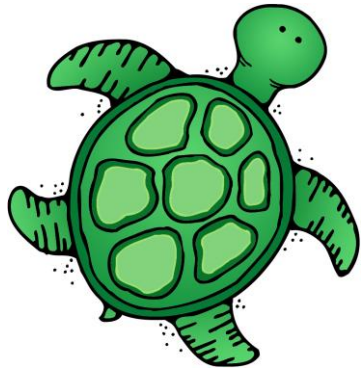
Write an Equation

Twice a number added to 6 is 14.

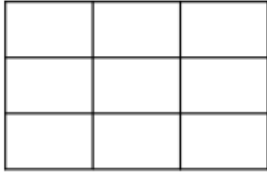
$$2x + 6 = 14$$



Solve an Easier Problem



How many squares are in the picture?



Squares with sides of 1 unit = 9
Squares with sides of 2 units = 4
Squares with sides of 3 units = 1
Number of squares: $9 + 4 + 1 = 14$

Use Estimation

One pail holds 12 starfish (that's close to 10).
There are 8 pails (that's close to 10).
So, 10×10 is about 100 starfish.



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