# Calculator Guessing Game

| 32 | 42 | 62 |
|----|----|----|
| 48 | 78 | 88 |

Rick, Mary and Rob are
playing a game. Rick has the calculator. He secretly picks a number from the yellow box and then one from the blue box.
Using the calculator, he multiplies them.
Now he shows the calculator to Mary and Rob.

Rick says, "Can you find which numbers I used?"

Rob and Mary look at the number on the calculator. It is 5456.

***Can you think which numbers Rick used?***

Rob says "I think you used 32 x 48"

Mary says "I think 32 x 48 is too small. 32 is close to 30 and 48 is close to 50.
The answer to 32 x 48 will be close to 30 x 50. Now I can do 30 x 50 in my head!
3 x 5 = 15 and there will be 00 on the end. So, 30 x 50 is 1500. That's much too small!"

Rob says "Oh that is a clever way to try and find the answer. Let's try another pair in our heads. Let's try 62 and 78!  62 is close to 60 and 78 is close to 80. I think 62 x 78 will be close to 60 x 80. What is 60 x 80?"

***Can you help Rob?***

***Can you use Rob and Mary's method to work out which pair to choose?***

***Then you can use the calculator to check your answer.***

Now you can play the game with another person in your family.

## Guessing Game 2
Here are some more boxes to use in the game.
Make sure you decide which box you are going to pick your numbers from and tell your partner which one it is.
You or your partner secretly picks a number from the yellow box and then one from the blue box.
Using the calculator multiply them together.  Show your partner this product.
Now your partner needs to find these two numbers by using estimations.

| 21 | .51 | 71 |
|----|-----|----|
| .16 | 36 | 66 |

| 15 | 45 | 95 |
|----|----|----|
| 65 | 75 | 85 |