

Secondary puzzle – Thinking of numbers - Solutions

Thinking of numbers.....

I am thinking of two numbers
My numbers are in the ratio 2:5
One number is 21 more than the other number
What are my two numbers ?

Solution : 14 and 35

{There are 7 parts in total; one number has 3 more parts than the other part, so $21 = 3$ parts.
Therefore 1 part = 7}

I am thinking of two numbers
My numbers are in the ratio 2:7
One number is 21 more than the other number
What are my two numbers ?

Solution : 8.4 and 29.4

{There are 9 parts in total; one number has 5 more parts than the other part, so $21 = 5$ parts.
Therefore 1 part = 4.2}

I am thinking of two numbers
My numbers are in the ratio 2:7
The product of the two numbers is 686
What are my two numbers ?

Solution : 14 and 49 or -14 and -49

{ $2:7 = 1: 3.5$, so $y=3.5x$
 $xy = 686$ so $3.5 x^2 = 686$
 $x^2 = 196$ so $x = + / - 14$ and $y = + / - 49$ }