Die Knobelecke

Mathematik außerhalb des Unterrichts
am Theodor-Heuss-Gymnasium Pforzheim

Musterlösung 3. Runde 2021/22
Klassenstufen 7 und 8

Aufgabe 1

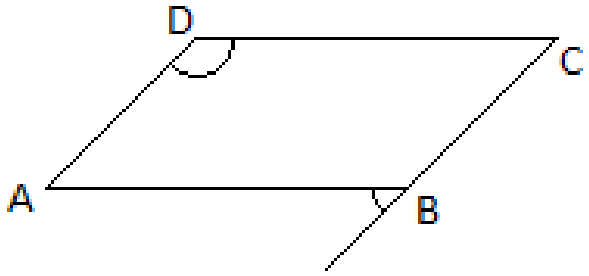
The four numbers are:

0,000.33 $\frac{1}{5000}$ = 0,000.2 0,000.22 $\frac{3}{40000}$ = 0,000.075

The smallest is 0,000.075, the largest is 0,000.33, the product of both:
0,000.075 · 0,000.33 = **0,000.000.024.75**

Aufgabe 2

Opposite angles in a parallelogram are equal. So the angles at B sum up to ε + 3ε = 4ε. That must be 180°, so ε must be 180°:4 = **45°**.



Aufgabe 3

To find the number of both water and oats, we must multiply both ingredients (¾ cup of water and 1/3 cup of oats) with their common denominator.[1] The common denominator ist 3·4 = 12.

So we need $\frac{3}{4}\cdot 12$ = 9 cups of water, $\frac{1}{3}\cdot 12$ = 4 cups of oats and $\frac{1}{4}\cdot 12$ = **3 teaspoons of salt**.

1 common denominator = Hauptnenner