

EoS - E-tutorial 01 - WiSe 2023/2024

Anna wants to analyse the unemployment rates of 15 regions in more detail. For this purpose she looks at the unemployment rate as well as at the absolute unemployment figures and assesses those.

Hint: Please round your results - if necessary and if not asked otherwise - to **four** decimal places.

Region	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Unemployment rate in percent	7.08	5.6	2.6	1.87	3.71	4.67	6.59	5.02	3.57	1.79	4.15	6.26	7.24	6.32	7.77
Number of unemployed persons	72000	56000	26000	19000	37000	46000	65000	50000	35000	18000	42000	63000	72000	63000	79000

- a) (20 Points) Please use a suitable measure of location to calculate the average number of unemployed people in the regions B, J, L and M. 52250
- b) (30 Points) Please calculate the average unemployment rate in the regions C, E, I, J, L and N on the basis of a fitting measure of location. The unemployment rate (UR) is defined as the proportion of the number of unemployed persons (U) and the number of employed persons (E). According to that, the following holds: $UR = U/E$.
Please state your result in percent! 331.3268 %
- c) (10 Points) Which of the following statements regarding the relation between the arithmetic, geometric and harmonic mean is correct? The value of the inverse of the arithmetic mean is always greater or at least equal to the value of the inverse of the geometric mean.

Die bestmögliche Lösung lautet:

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Please state your result in percent! 3.3133 %
- c) (10 Points) Which of the following statements regarding the relation between the arithmetic, geometric and harmonic mean is correct? The value of the inverse of the arithmetic mean is always less or at most equal to the value of the inverse of the harmonic mean.

Sie haben 20 von 60 möglichen Punkten erreicht.