

Mini Kangaroo 2025 Solution letters and references

1 Solution Letters

1.1 Inclusion

Question	A-1	A-2
Solution	В	A
Question	B-1	B-2
Solution	A	В
Question	C-1	C-2
Solution	С	В

1.2 1st Grade

Question	A-1	A-2	A-3	A-4
Solution	D	В	A	Е
Question	B-1	B-2	B-3	B-4
Solution	A	С	С	Е
Question	C-1	C-2	C-3	C-4
Solution	С	В	Е	С

1.3 2nd Grade

Question	A-1	A-2	A-3	A-4	A-4
Solution	A	D	С	Е	С
Question	B-1	B-2	В-3	B-4	B-5
Solution	В	D	Е	С	Е
Question	C-1	C-2	C-3	C-4	C-5
Solution	В	E	A	A	D

2 Authors

All questions not listed separately: Heike Winkelvoß. They are available under the CC-BY-SA licence.

2.1 1st Grade

[Question A-2] Heike Winkelvoß (based on an idea from Johannes Lehmann und andere: ABC-Mathematikolympiade, S.35)

2.2 Klasse 2

[Question A-1] Heike Winkelvoß (based on an idea from Johannes Lehmann: 2 mal 2 plus Spaß dabei, S.31)

[Question B-4] Heike Winkelvoß (based on an idea from Johannes Lehmann und andere: ABC-Mathematikolympiade, S.67)

[Question C-1] Heike Winkelvoß (based on an idea from Johannes Lehmann und andere: ABC-Mathematikolympiade, S.75)

[Question C-3] Heike Winkelvoß (based on an idea from Olympiaden Matsnanje (2023), Kl. 1-2) [Question C-4] Heike Winkelvoß (based on an idea from Johannes Lehmann: 2 mal 3 plus Spaß dabei, S.109)

[Question C-5] Heike Winkelvoß (based on an idea from Eichhörnchenolympiade (2019), 2)

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4 Image sources

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All images not mentioned were drawn with TikZ https://tikz.dev/ oder Kolour Paint https://apps.kde.org/kolourpaint/.

4.1 Inclusion

A-1: 123RF

B-2: 123RF

C-1: 123RF

C-2: 123RF

4.2 1st Grade

B-4: 123RF

C-2: 123RF

4.3 2nd Grade

B-1: 123RF

C-5: 123RF