



Checklist for Kangaroo Problem Groups

— KSF and CMKC Guidelines —

May 2022

Checklist for all Kangaroo Problems

The following points should be checked one by one after the working group is near finishing its problem selection process but before the selected problems are presented to the other groups.

- 3-point problems are all one-step problems
- first five 3-point problems are especially easy and short; easy even for very weak students
- no distractors of type “none of the above” or “some other answer” are used in 3-point problems
- if distractors of the above type are used in 4-point or 5-point problems, this is the correct answer for at least one problem
- it is possible for the best students to finish all problems (including checking) in time allowed

Checklist for all Kangaroo Problems

The following points should be checked one by one after the working group is near finishing its problem selection process but before the selected problems are presented to the other groups.

- no individual problem requires more than 3 minutes of calculation (calculations should actually be done by group members)
- correct answers are distributed reasonably evenly among A, B, C, D, E (specifically, when there are 30 problems, at least 4 of each and at most 10 of each)
- the text is in a reasonably finalised version: sentences are in correct English, with each problem clearly and unambiguously stated; distractors have been thought through; the correct answer is marked; graphics have been checked

Graphics

- Graphics should be produced in a high quality vector format. Bitmap images should be avoided.
- We are asked to take some effort to produce high quality graphics or get someone to help us.
- Vector graphics can be produced with professional graphics software such as Adobe Illustrator or Corel Draw; LATEX users may use PSTricks or TikZ. It is also possible to export vector graphics from GeoGebra, see the instructions in the Documents section on our internal website.
- All graphics should be prepared to the right size with no white margins around the actual image (i. e. clipped to the right size). All fonts in graphics should have an appropriate size (approx. 10–12 pt).
- If you have a colourful image, think about providing a black-and-white version as well.
- Some drawings are not to scale on purpose. However, please make sure that e. g. squares are really squares, lines in grids are aligned, create polygons as polygons (so lines meet nicely at the vertices), and so on.

Graphics

- Each figure must be prepared in a separate file; only the following file types are allowed:
- EPS or PDF files for vector graphics (preferred), PNG files for bitmaps.
- Use the export function of your graphics software to obtain the correct file type. Do not just “save” the graphics (in particular not by copying images to Word), do not use screenshots, do not manually rename file extensions, and do not convert graphics files (in particular, do not convert a bitmap to an EPS or PDF file; it will remain a bitmap no matter what the file extension is; export an honest PNG file if you do not have vector graphics).
- All PNG graphics should have a resolution of 300 DPI or better 600 DPI.
- Please save the original sources for your graphics (i.e. save AI, CDR, PST, TKZ, GGB, . . . files), they may be helpful later if changes are needed.
- File names: only use letters, numbers, - and _ in file names, in particular no spaces, no special characters other than - and _, and no letters with accents.

Other Considerations

- Printing the problems in grey or black/white color
- Canada's curricula
- Canadian English/French language specifics
- Balanced problem selection: geometry; number; algebra; logic