Answer keys: MK 2021, Level 6 (Grades 11-12)

2. A [video] How many integers are in ... 3. **D** [video] A cube with edge 1 ... 4. E [video] A large square is divided ... 5. A [video] After the storm last night, ... 6. **B** [video] A rectangular sheet of paper ... 7. **E** [$\underline{\text{video}}$] Let \(x = \frac{\pi c}{\pi i}{4}\). Which ... 8. C [video] How many 3-digit-numbers formed using ... 9. C [video] What is the area of ... 10. **D** [video] The parabola in the figure ... 11. **D** [video] What fraction of all the ... 12. **D** [video] If $(A = [0,1] \subset [2,3])$ and ... 13. **D** [video] How many three-digit natural numbers ... 14. A [video] The first 1000 positive integers ... 15. C [video] A large triangle is divided ... 16. C [video] An infinite list of numbers ... 17. **B** [video] In the 5x5 square shown ...

1. E [video] Paula's weather app shows a ...

22. **B** [<u>video</u>] The numbers 1, 2, 7, ...

18. B [video] A piece of string is ...19. E [video] A naughty pup grabs the ...

- 23. E [video] The function \(f\) is such ...
- 24. **D** [video] Five kangaroos named A, B, ...

21. E [video] The figure shows the graph ...

20. C [video] The diagram shows three squares, ...

- 25. **B** [video] The solid shown in the ...
- 26. A [video] On a circle 15 points ...
- 27. A [video] A triangle ABC is divided ...
- 28. C [video] Two plane mirrors OP and ...
- 29. **B** [$\underline{\text{video}}$] Let \((M(k)\) be the maximum ...
- 30. **B** [video] A certain game is won ...

Useful links

- 1. Math Kangaroo resources: https://boo9.com/resources/math-kangaroo
- 2. Practice online (automated grading) @ https://boo9.com/practice
- 3. View these questions online @ click here
- 4. Video solution (all problems this set): <u>click here</u>
- 5. Playlist (all videos this level): click here

