

# Answer keys: MK 2022, Level 6 (Grades 11-12)

1. E [ [video](#) ] Martin's smartphone displays the diagram ...
2. B [ [video](#) ] How many positive three-digit numbers ...
3. B [ [video](#) ] Bella is older than Charly ...
4. E [ [video](#) ] Which one of the following ...
5. A [ [video](#) ]  $\sqrt[5]{8}$  pencils are distributed evenly ...
6. D [ [video](#) ] The product of the digits ...
7. D [ [video](#) ] Four circles with radius 1 ...
8. B [ [video](#) ] All integers from 2 to ...
9. A [ [video](#) ] How many real solutions does ...
10. E [ [video](#) ] The points A, B, C ...
11. D [ [video](#) ] Four straight lines that intersect ...
12. E [ [video](#) ]  $a$ ,  $b$  and  $c$  are ...
13. D [ [video](#) ] We check the water meter ...
14. D [ [video](#) ] The square pictured, is split ...
15. E [ [video](#) ] What is the largest common ...
16. B [ [video](#) ] The diagram shows a map ...
17. E [ [video](#) ] In a tournament with 8 ...
18. C [ [video](#) ] A cuboid with surface area ...
19. B [ [video](#) ] The arithmetic mean of five ...
20. C [ [video](#) ] A circle with midpoint (0|0) ...
21. B [ [video](#) ] The vertices of a 20-gon ...
22. A [ [video](#) ] Which two building blocks can ...
23. D [ [video](#) ] A rectangle is split into ...
24. B [ [video](#) ] Two rectangles are inscribed into ...
25. A [ [video](#) ] How many three-digit numbers are ...
26. E [ [video](#) ] The numbers 1 to 10 ...
27. C [ [video](#) ] A square is placed in ...
28. C [ [video](#) ] Let  $N$  be a positive ...
29. D [ [video](#) ] A sequence  $\langle a_n \rangle$  ...
30. C [ [video](#) ] Two circles intersect a rectangle ...

## 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): [click here](#)
5. Playlist (all videos this level): [click here](#)

