

# Answer keys: MK 2018, Level 6 (Grades 11-12)

1. **A** In the diagram you can ...
2. **D** Which of the following expressions ...
3. **B** The diagram shows the floor ...
4. **D** Thor has seven stones and ...
5. **C** The diagram shows an object ...
6. **E** The following two statements are ...
7. **A** Four identical rhombuses (diamonds) and ...
8. **B** There are 65 balls in ...
9. **B** The faces of the brick ...
10. **A** How many ways are there ...
11. **B** Two dice with volumes  $V$  ...
12. **D** The five vases shown are ...
13. **A**  $\sqrt{17} - 5 + \sqrt{17}$  ...
14. **D** An octahedron is inscribed into ...
15. **D** The vertices of a triangle ...
16. **B** Before the football game, Real ...
17. **B** A regular pentagon is cut ...
18. **C** Which of the following numbers ...
19. **B** Three of the cards shown ...
20. **E** Two rectangles form the angles ...
21. **A** The faces of the prism ...
22. **D**  $m$  and  $n$  are the ...
23. **B** Fours brothers with the harmonious ...
24. **D** A function  $f$  fulfills the ...
25. **C** A quadratic function of the ...
26. **E** On an idealised rectangular billiard ...
27. **B** How many real solutions does ...
28. **A** ABCDEF is a regular hexagon, ...
29. **C** In a class there are ...
30. **E** Archimedes has calculated  $15!$  . ...

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

