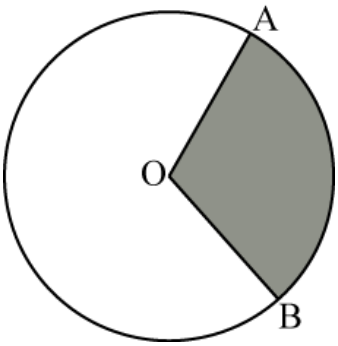
Grade 7

Extra Challenges - Set VI

This resource may be copied in its entirety, but is **not to be used for commercial purposes** without permission from the Centre for Education in Mathematics and Computing, University of Waterloo.

1. The average of five consecutive integers is fifteen. What is the sum of only the prime numbers of these integers?



2. In the circle with centre O the shaded area is 35% of the circle. What is the measure of the $\angle AOB$?

3. To solve a particular problem, Simon had to add four to a certain number and then divide the result by two. Instead, he added two and then divided the result by four to get an answer of six. If Simon correctly solved the original problem what would have been the final answer?

4. Ivona was playing a video game. At the completion of level one she received some points. After completing the second level she earned three times the number of points received in the first level. When Ivona completes each subsequent level the number of points earned is triple the number of points received in the previous level. The total number of points is equal to the sum of all points that have been received. Ivona finished level four and had a total of 7600 points. How many points did she have in total after the completion of level three?

5. Leah wants to paint the walls in her bedroom. Her room is 3 metres wide and 4 metres long. The height of the walls is 2.5 metres. The surface area of the door is approximately 1.8 square metres and the surface area of the window is approximately 1.4 square metres. One can of paint covers approximately a surface area of 33 square metres. How many cans of paint will Leah need to paint her room? Explain.

Don't forget to try these past contests! Go to www.wiredmath.ca for the link.

TRY THIS!

Past Gauss Contests

http://www.cemc.uwaterloo.ca/contests/past_contests.html#gauss