

Grade 8

EXTRA CHALLENGES - SET IV

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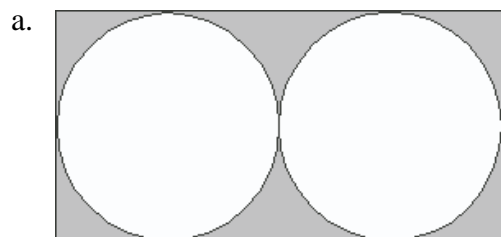
1. John's mom, Margaret, is three times older than him. In 15 years, Margaret will be twice the age of John. How old are John and Margaret?

2. a. Find four consecutive integers whose sum is 190.

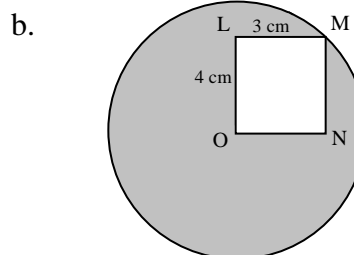
b. Explain why there are no four consecutive integers whose sum is 2052.

1234567...

3. Find the exact area of the shaded region.



12 cm



O is the centre of the circle.

4. The altitude of an equilateral triangle is 27 cm. Calculate the length of the each side of the triangle to the nearest tenth of a centimetre.

Did you Know?

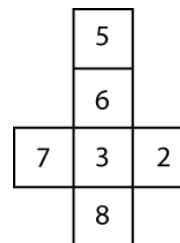
π

National Pi day is on March 14th at 1:59 p.m.
(3/14 1:59)

With the use of computers, Pi has been calculated over 10^{12} digits to the right of the decimal point.



5. The figure shown is folded to form a cube. Three faces meet at each corner. If the numbers at the three corners are multiplied, what is the largest possible product?



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