

Sarah Caboni

Attendance Quiz

11/1/2021

AQ 1: Who were the two geniuses who proved the impossibility of a formula for solving a quintic? Answer: Ruffini and Abel

AQ 2: Find a way to place 31 domino pieces and cover completely an  $8 \times 8$  square where two opposite corners have been removed.  
Answer: I'm not sure how to do this

AQ 3: What university did the most in classifying so-called simple groups? What math department has the most number of faculty members (dead or alive) with groups named after them?  
Answer: I'm not sure

AQ 4: At what ages did the above geniuses die?

Answer: Abel - 26 Ruffini - 56

1.  $(1\ 2\ 3\ 4\ 5\ 6\ 7)$   
 $(7\ 4\ 5\ 2\ 3\ 6\ 1)$

2.  $(1\ 2\ 3\ 4)$   
 $(4\ 1\ 2\ 3)$   
 $= (1\ 2\ 3\ 4)$   
 $\pi^4$

3.  $(1\ 2\ 3\ 4\ 5)$   
 $(3\ 1\ 2\ 5\ 4)$   
Cycles  $(3\ 2\ 1)$   $(4\ 5)$

4.  $\pi = (1\ 2\ 3\ 4\ 5)$   
 $(3\ 1\ 2\ 5\ 4)$   
 $\pi^{-1} = (1\ 2\ 3\ 4\ 5)$   
 $(2\ 3\ 1\ 5\ 4)$