Rational - Normalisation

Denominator expressions - Ex9

The examples below are intended to be used as exercises in mental arithmetic and the student should ***not*** make use of a calculator or other aid. The aim is to be able to do the exercises without such assistance. Where the denominator for an answer is one, it should be omitted in conformance to normal usage.

1. $963 / (25 \times 27 \times 2 + 41) =$
2. $217 / (25 \times 24 - 11) =$
3. $927 / (55 \times 55 - 2 \times 19) =$
4. $508 / (13 \times 13 - 3 \times 7) =$
5. $1746 / (32 \times 32 + 43) =$
6. $999 / (37 \times 42) =$
7. $768 / (3 \times 128 + 6 \times 62) =$
8. $159 / ((7 - 3) \times 6) =$
9. $1762 / (79 \times 79 - 75 \times 75) =$
10. $519 / ((243 - 97) \times 3) =$
11. $327 / (99 / 11 \times 24 + 47 \times 7) =$
12. $412 / (45 \times 45 + 8 \times 43) =$
13. $812 / (19 \times 19 + 4 \times 4) =$
14. $719 / (16 \times 16 \times (19 - 10) - (23 + 8) \times 13) =$
15. $1248 / (31 \times 37 + 11 \times 11 - 5 \times 4) =$
16. $392 / (14\times 32 - 7 \times 3) =$
17. $176 / (218 - (11 + 13) \times 2) =$
18. $2024 / (45 \times 45 - 13 \times 13) =$
19. $219 / (7 \times 3 + 4 \times 13) =$
20. $324 / (16 \times 16 + 8 \times 8) =$