

Rational - Normalisation

Mixed expressions - Ex10

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. $(5 \times 7 + 18) / (25 \times 24 - 11) =$

11. $(16 \times 16 + 4 \times 4) /$
 $(521 - 13 \times 17) =$

2. $(7 - 3) \times 6 / (43 \times 19 - 7 \times 5) =$

12. $((31 - 3) \times 7) /$
 $(21 \times 4 + 42 \times 6) =$

3. $(3 \times 256 - 7 \times 64) /$
 $(17 \times 28 - 9 \times 8 - 4) =$

13. $(37 \times 21 + 19 \times 11) /$
 $((55 - 13) \times 17 - 39 / 13) =$

4. $(17 \times 28 - 14 \times 13) /$
 $(35 \times 12) =$

14. $(11 \times 13 - 14 \times 39 + 23 \times 26) /$
 $(13 \times 16) =$

5. $(21 \times 13 - 14 \times 26 + 35 \times 4) /$
 $(13 \times 7 \times 2) =$

15. $(41 \times 11 - 27 \times 13 + 19 \times 5) /$
 $(41 \times 9 \times 19) =$

6. $(24 \times 9 + 32 \times 11 - 8 \times 4) /$
 $(12 \times 6 \times 3) =$

16. $((39 - 17) \times 22 + (19 - 12) \times 7) /$
 $(4 \times 7) =$

7. $((129 - 47) \times 11 - (36 - 27) \times 13) /$
 $(169 \times 22) =$

17. $((11 - 19) \times 27 + 5 \times 16) /$
 $((3 - 7) \times 6 + (7 - 3) \times 10) =$

8. $((29 - 16) \times 11 + (37 - 24) \times 7) /$
 $(13 \times 7) =$

18. $((76 - 39) \times 11 - 14 \times 3) /$
 $(15 \times 15) =$

9. $((72 - 21) \times 12 - (11 + 6) \times 3) /$
 $(11 \times 3) =$

19. $(13 \times 99 - 11 \times 6) /$
 $((48 - 16) \times 3) =$

10. $(12 \times 7 - 6 \times 3) / (7 \times 3) =$

20. $(92 \times 49 + 23 \times 12) /$
 $(14 \times 6) =$