Laws of Exponents Worksheet

Simplify the following.

1. a3 x a-5
2. p x p4
3. a2 x a-3 x a4
4. (2b6)(b11)
5. (-9x4)(-6x3)
6. (3a3b)(4a2b7)
7. (3x2y)(4xy2)(-2x3y)
8. (3x4y3z2)(5x2y-4)
9. 40x7y3 ÷ 8y3
10. (-24x6y12z10) ÷ (-3x2y6z2)
11. (15x4) ÷ (10x3)
12. (x2)3
13. (a3b-2)4
14. (3x4)2
15. (x4y3z3)3
16. (-3a4b2)3(-2a-3b)2
17. (-x4y-8)7
18. (-2xy7)2
19. (-76)11
20. (y2 x y4)2