ALGEBRA, FACTORING, RADICALS REVIEW SHEET
FOR GR 11, 12

Answers:

Algebra
1. 6
2. 12
3. $\frac{-8}{3}$
4. 12
5. −2
6. −15
7. −3
8. $\frac{-40}{7}$
9. 3
10. 3
11. −5
12. $\frac{-32}{15}$
13. −3
14. $\frac{21}{8}$
15. $\mathfrak{R}$
16. $\frac{15}{4}$
17. 2
18. $\frac{-7}{6}$
19. $\frac{-7}{2}$
20. −10
21. 1
22. −2
23. −7
24. 6

Factoring:

1. $4m^2(2m - 1)$
2. $(m + 4)^2$
3. $(a - 5)(a + 4)$
4. $(a + 6)(a - 6)$
5. $(a + 12b)(a + 2b)$
6. $(4x - 3)(x - 1)$
7. $8(a + 3)(a - 3)$
8. $(x - 5y)(x + 5y)(x + 2y)(x - 2y)$
9. $-4(y^2 - 3)(3y^2 + 2)$
10. $(c + 25d)(c - 4d)$
11. $(2x - 5)(3x + 1)$
12. $(x - 5)(6x - 1)$

13. $(2a - 3c)(2a + 3c)$
14. $4(x + 3)(x - 8)$
15. $(x - 24)(x + 5)$
16. $3(x - 2)(4x + 3)$
17. $(y - 4)(y + 2)$
18. $(3x + 1)(3x - 1)(9x^2 + 1)$
19. $(2x - 1)^2$
20. $(5x - 3)(2x + 1)$
21. $5(x + 2)(x + 1)$
22. $(x - 1)((5x - 2)$
23. $(2a + 5)(4a - 1)$
24. $(x + 2)(x - 2)(x + \sqrt{10})(x - \sqrt{10})$

Radicals:

1. $3\sqrt{5}$
2. $\sqrt{70}$
3. $6\sqrt{2}$
4. $2\sqrt[3]{5}$
5. $3\sqrt[3]{4}$
6. $4\sqrt{5}$
7. $3\sqrt{2}$
8. $4\sqrt{2}$
9. $3\sqrt[3]{2}$

REVIEW:
1. $-\frac{1}{40}$
2. $-\frac{49}{4}$
3. $\frac{9}{10}$
4. $\frac{16x^{16}y^4}{625}$
5. $\frac{(36x - 5)^2}{144}\left(\frac{7x}{7x - 11}\right)^3$
6. 2187

7. $-\frac{2}{x^4}$
8. 34
9. $\frac{647}{5}$
10. 0
11. $\frac{27}{125}$
12. $\frac{100}{81y^2}$
13. $\left(\frac{8}{7}\right)^{\frac{7}{2}}$
14. a) 194.54
    b) 200
    c) 190
    d) 194.5
    e) 195
15. a) 9
    b) 9.0
    c) 9.039
16. a) $4.30
    b) $4.00
17. a) -8
    b) -8.4
    c) -10
    d) -8.45
18. a) 6.8
    b) 6.77
    c) 7
19. a) -16.9
    b) -16.94
    c) -16.9
20. a) -1.1
    b) -1
    c) -1.122
    d) -1.12
21. 49%