

BADAA AL MUTAWA SCHOOL

MATHEMATICS — MULTIPLE-CHOICE ASSESSMENT-M11L4 – Special Products

Student Name: _____	Grade: _____
Date: _____	Subject: Mathematics
Subject Teacher: Abdulkader Amro	Total Questions: 33

Choose the one correct answer for each question.

SECTION 1 • EXAMPLE 4 — FIND EACH PRODUCT

15. $(u + 3)(u - 3)$

A. $u^2 - 6u + 9$

B. $u^2 - 9$

C. $u^2 + 6u + 9$

D. $u^2 + 9$

16. $(b + 7)(b - 7)$

A. $b^2 - 49$

B. $b^2 + 14b + 49$

C. $b^2 - 14b + 49$

D. $b^2 + 49$

17. $(2 + x)(2 - x)$

A. $x^2 - 4$

B. $x^2 + 4$

C. $4 + x^2$

D. $4 - x^2$

18. $(4 - x)(4 + x)$

A. $16 - x^2$

B. $x^2 - 16$

C. $16 - 8x + x^2$

D. $16 + x^2$

19. $(2q + 5r)(2q - 5r)$

A. $4q^2 - 25r^2$

B. $4q^2 + 25r^2$

C. $4q^2 + 10qr + 25r^2$

D. $4q^2 - 10qr + 25r^2$

20. $(3a^2 + 7b)(3a^2 - 7b)$

A. $9a^2 - 49b^2$

B. $9a^4 - 42a^2b + 49b^2$

C. $9a^4 + 49b^2$

D. $9a^4 - 49b^2$

SECTION 2 • MIXED EXERCISES

21. $(n + 3)^2$

A. $n^2 + 9$

B. $n^2 + 3n + 9$

C. $n^2 - 6n + 9$

D. $n^2 + 6n + 9$

22. $(x + 4)(x + 4)$

A. $x^2 - 8x + 16$

B. $x^2 + 16$

C. $x^2 + 4x + 16$

D. $x^2 + 8x + 16$

23. $(y - 7)^2$

A. $y^2 + 14y + 49$

B. $y^2 - 7y + 49$

C. $y^2 - 49$

D. $y^2 - 14y + 49$

24. $(t - 3)(t - 3)$

A. $t^2 - 9$

B. $t^2 - 6t + 9$

C. $t^2 + 6t + 9$

D. $t^2 - 3t + 9$

25. $(b + 1)(b - 1)$

A. $b^2 + 1$

B. $b^2 - 2b + 1$

C. $b^2 + 2b + 1$

D. $b^2 - 1$

26. $(a - 5)(a + 5)$

A. $a^2 + 10a + 25$

B. $a^2 - 25$

C. $a^2 + 25$

D. $a^2 - 10a + 25$

27. $(p - 4)^2$

A. $p^2 - 16$

B. $p^2 - 8p + 16$

C. $p^2 + 8p + 16$

D. $p^2 - 4p + 16$

28. $(z + 3)(z - 3)$

A. $z^2 + 6z + 9$

B. $z^2 - 9$

C. $z^2 + 9$

D. $z^2 - 6z + 9$

29. $(\ell + 2)(\ell + 2)$

A. $\ell^2 + 2\ell + 4$

B. $\ell^2 + 4\ell + 4$

C. $\ell^2 - 4\ell + 4$

D. $\ell^2 + 4$

30. $(r - 1)(r - 1)$

A. $r^2 - 2r + 1$

B. $r^2 - 1$

C. $r^2 + 2r + 1$

D. $r^2 - r + 1$

31. $(3g + 2)(3g - 2)$

A. $9g^2 + 4$

B. $9g^2 - 4$

C. $9g^2 - 12g + 4$

D. $9g^2 + 12g + 4$

32. $(2m - 3)(2m + 3)$

A. $4m^2 + 6m - 9$

B. $4m^2 + 9$

C. $4m^2 - 9$

D. $4m^2 - 6m + 9$

33. $(6 + u)^2$

A. $u^2 + 36$

B. $u^2 + 12u + 36$

C. $u^2 + 6u + 36$

D. $u^2 - 12u + 36$

34. $(r + t)^2$

A. $r^2 - 2rt + t^2$

B. $r^2 + 2rt + t^2$

C. $r^2 + t^2$

D. $r^2 + rt + t^2$

35. $(3q + 1)(3q - 1)$

A. $9q^2 - 1$

B. $9q^2 - 6q + 1$

C. $9q^2 + 6q + 1$

D. $9q^2 + 1$

36. $(c - d)^2$

A. $c^2 - cd + d^2$

B. $c^2 - d^2$

C. $c^2 - 2cd + d^2$

D. $c^2 + 2cd + d^2$

37. $(2k - 2)^2$

A. $4k^2 + 8k + 4$

B. $4k^2 - 8k + 4$

C. $4k^2 - 4k + 4$

D. $4k^2 - 4$

38. $(w + 3h)^2$

A. $w^2 + 9h^2$

B. $w^2 - 6wh + 9h^2$

C. $w^2 + 3wh + 9h^2$

D. $w^2 + 6wh + 9h^2$

39. $(3p - 4)(3p + 4)$

A. $9p^2 - 24p + 16$

B. $9p^2 + 24p + 16$

C. $9p^2 + 16$

D. $9p^2 - 16$

40. $(t + 2u)^2$

A. $t^2 + 4u^2$

B. $t^2 - 4tu + 4u^2$

C. $t^2 + 4tu + 4u^2$

D. $t^2 + 2tu + 4u^2$

41. $(x - 4y)^2$

A. $x^2 - 8xy + 16y^2$

B. $x^2 - 4xy + 16y^2$

C. $x^2 - 16y^2$

D. $x^2 + 8xy + 16y^2$

42. $(3b + 7)(3b - 7)$

A. $9b^2 - 42b + 49$

B. $9b^2 + 42b + 49$

C. $9b^2 + 49$

D. $9b^2 - 49$

43. $(3y - 3g)(3y + 3g)$

A. $9y^2 + 9g^2$

B. $9y^2 - 9g^2$

C. $9y^2 + 18yg + 9g^2$

D. $9y^2 - 18yg + 9g^2$

44. $(n^2 + r^2)^2$

A. $n^4 + r^4$

B. $n^4 + 2n^2r^2 + r^4$

C. $n^4 + n^2r^2 + r^4$

D. $n^4 - 2n^2r^2 + r^4$

45. $(2k + m^2)^2$

A. $4k^2 + 2km^2 + m^4$

B. $4k^2 - 4km^2 + m^4$

C. $2k^2 + 4km^2 + m^4$

D. $4k^2 + 4km^2 + m^4$

46. $(3t^2 - n)^2$

A. $9t^4 - 6t^2n + n^2$

B. $3t^4 - 6t^2n + n^2$

C. $9t^4 - 3t^2n + n^2$

D. $9t^4 + 6t^2n + n^2$

SECTION 3 • GEOMETRY

47. The length of a rectangle is the sum of two whole numbers. The width is the difference of the same two whole numbers. Write a verbal expression for the area.

A. The sum of the squares of the two whole numbers

B. The difference of the squares of the two whole numbers

C. Twice the product of the two whole numbers

D. The product of the sum and the difference of the two whole numbers