Gateway Exam #1 Practice Problems
Expanding Expressions

1. If the expression $-3(t + 2) + t(t + 1)$ was expanded and simplified as much as possible, you could obtain:

    (a) $t^2 - 2t - 6$

    (b) $t^2 + 2t - 6$

    (c) $t - 6$

    (d) $t^2 - 3t + 3$

    (e) $-2t + 1$

2. If the expression $x(x + 2) + x$ was expanded and simplified as much as possible, you could obtain:

    (a) $x^2 + x + 2$

    (b) $3x + 2$

    (c) $x^2 + 3x$

    (d) $x^2 + 2x$

    (e) $2x^2 + x$

3. If the expression $a^2(4 + a)$ was expanded and simplified as much as possible, you could obtain:

    (a) $4a + a^3$

    (b) $16 + a^2$

    (c) $16a + 8a^2 + a^3$

    (d) $4a^2 + a^3$

    (e) $4a^2 + a$

4. If the expression $(u + 3)(u + 1)$ was expanded and simplified as much as possible, you could obtain:

    (a) $u^2 + 3u + 1$

    (b) $u^2 + 3$

    (c) $u^2 + 4$

    (d) $2u + 4$

    (e) $u^2 + 4u + 3$

5. If the expression $3(r + 1) + r^2$ was expanded and simplified as much as possible, you could obtain:

    (a) $r^2 + 3r + 3$

    (b) $3r + 1 + r^2$

    (c) $3r + 1$

    (d) $3r + 3$

    (e) $3r^2 + 3r + 3$

6. If the expression $(h+1)(h+2)$ was expanded and simplified as much as possible, you could obtain:

(a) $h^2 + 2$

(b) $h^2 + 3h + 2$

(c) $h^2 + 2h + 3$

(d) $h + 3$

(e) $h^3 + 3h^2 + 2h$

7. If the expression $(w+2)(w-2)$ was expanded and simplified as much as possible, you could obtain:

(a) $w^2 + 4$

(b) $w^2 - 4$

(c) $w^2 + 2w + 4$

(d) $w^2 - 2w - 4$

(e) $w^2 - 2w + 4$

8. If the expression $(p+3)(p-2)$ was expanded and simplified as much as possible, you could obtain:

(a) $p^2 - 1$

(b) $p^2 - 6$

(c) $p^2 + p - 6$

(d) $p^2 - p + 6$

(e) $p^2 + 3p - 2$

9. If the expression $(w+1)(w-3)$ was expanded and simplified as much as possible, you could obtain:

(a) $w^2 + 2w - 3$

(b) $w^2 + w - 3$

(c) $w^2 - 3$

(d) $w^2 + 3w - 1$

(e) $w^2 - 2w - 3$

10. If the expression $x^2(x+2)$ was expanded and simplified as much as possible, you could obtain:

(a) $x^3 + 2$

(b) $x + 2x^2$

(c) $x^2 + 2$

(d) $x^3 + 2x^2$

(e) $x^3 + 2x$

11. If the expression $r(r+1)^2$ was expanded and simplified as much as possible, you could obtain:

(a) $r^3 + 2r^2 + r$

(b) $r^2 + 2r + 1$

(c) $r^3 + r$

(d) $r^3 + r^2 + 1$

(e) $r^2 + 1$

12. If the expression $u(u - 2)$ was expanded and simplified as much as possible, you could obtain:

   (a) $u^2 - 2$

   (b) $u - 2u$

   (c) $-u$

   (d) $u^2 - 2u$

   (e) $-u^2$

13. If the expression $(4 - 3x)x^2$ was expanded and simplified as much as possible, you could obtain:

   (a) $4 - 3x^3$

   (b) $4x^2 - 3x$

   (c) $4x^2 - 3x^3$

   (d) $-x^3$

   (e) $-3x^3$

14. If the expression $(t^4 - 4t)t^2$ was expanded and simplified as much as possible, you could obtain:

   (a) $t^4 - 4t^3$

   (b) $t^6 - 4t^3$

   (c) $t^6 - 4t$

   (d) $t^4 - 4t^2$

   (e) $4t^6$

15. If the expression $(p^2 + 2)p$ was expanded and simplified as much as possible, you could obtain:

   (a) $p^3 + 2$

   (b) $p^2 + 2p$

   (c) $3p^3$

   (d) $3p^2$

   (e) $p^3 + 2p$

Answers:

1.	a	2.	c	3.	d	4.	e	5.	a
6.	b	7.	b	8.	c	9.	e	10.	d
11.	a	12.	d	13.	c	14.	b	15.	e