

Name : \_\_\_\_\_

## GCF & LCM - Polynomials

Sheet 2

1) The LCM and GCF of  $r(a)$  and  $s(a)$  are  $a^5 + 4a^4 + 7a^3 + 16a^2 + 12a$  and  $a^2 + 4$  respectively. If  $r(a)$  is  $a^3 + 3a^2 + 4a + 12$ , find  $s(a)$ .

2) The GCF and LCM of  $b(x)$  and  $a(x)$  are  $x^2 - 8x + 16$  and  $x^4 - 6x^3 + 32x$  respectively. If  $a(x)$  is  $x^3 - 6x^2 + 32$ , determine  $b(x)$ .

3) The LCM and GCF of two polynomials is  $k^4 - 8k^2$ .

4) The GCF and LCM of two polynomials is  $2x^2 - 8x + 8$ . Determine the other polynomial, if one of the polynomials is  $x^2 - 4x + 4$ .

5) The LCM and GCF of two polynomials are  $w^3 + 2w^2 - 43w + 40$  and  $w + 8$  respectively. Find the other polynomial, if one of the polynomials is  $w^2 + 3w - 40$ .

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ely. Determine the other

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## Answer key

### GCF & LCM - Polynomials

Sheet 2

- 1) The LCM and GCF of  $r(a)$  and  $s(a)$  are  $a^5 + 4a^4 + 7a^3 + 16a^2 + 12a$  and  $a^2 + 4$  respectively. If  $r(a)$  is  $a^3 + 3a^2 + 4a + 12$ , find  $s(a)$ .

$$a^4 + a^3 + 4a^2 + 4a$$

- 2) The GCF and LCM of  $b(x)$  and  $a(x)$  are  $x^2 - 8x + 16$  and  $x^4 - 6x^3 + 32x$  respectively. If  $a(x)$  is  $x^3 - 6x^2 + 32$ , determine  $b(x)$ .

$$x^3 - 8x^2 + 16x$$

- 3) The LCM and GCF of two polynomials is  $k^4 - 8k$ .

$$k^2 - k - 56$$

- 4) The GCF and LCM of two polynomials is  $7v^4 + 28v^3$ . If one of the polynomials is  $v^2 + 3v - 40$ , determine the other polynomial.

$$7v^4 + 28v^3$$

- 5) The LCM and GCF of two polynomials are  $w^3 + 2w^2 - 43w + 40$  and  $w + 8$  respectively. Find the other polynomial, if one of the polynomials is  $w^2 + 3w - 40$ .

$$w^2 + 7w - 8$$

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