**Multiplying and Dividing Algebraic Fractions GREEN**

|  |  |
| --- | --- |
| 1) 7 x 2 8v 5v | 2) 6t ÷ 3 5 4t |
| 3) \_6\_ x 5j – 5 7j – 7 6j  | 4) 6x + 3 ÷ 10x + 5 8x 4 |
| 5) 21w – 14 x \_\_\_4\_\_\_\_ 8w 24w² - 16w | 6) \_\_3b\_\_ ÷ \_\_9\_\_ 10b + 20 2b² + 4b |
| 7) a² - a – 6 x a² + 3a – 10 a² + 6a + 5 a² + a – 12 | 8) c² + 12c + 32 ÷ c² - 3c – 28 c² - 5c + 4 c² + c – 2 |
| 9) 2f² - 11f + 12 x 5f² + 42f + 16 3f² + 23f – 8 2f² - f – 3 | 10) 5g² + 21g + 4 ÷ 10g² - 13g - 3  6g² + 7g + 2 2g² 17g + 8 |

**Multiplying and Dividing Algebraic Fractions AMBER**

|  |  |
| --- | --- |
| 1) 7 x 2 8v 5v | 2) 6t ÷ 3 5 4t |
| 3) \_6\_ x 5j – 5 7j – 7 6j = \_\_6\_\_ x 5( )  7( ) 6j | 4) 6x + 3 ÷ 10x + 5 8x 4 = 3( ) x \_\_4\_\_ 8x 5( ) |
| 5) 21w – 14 x \_\_\_4\_\_\_\_ 8w 24w² - 16w = 7( ) x \_\_\_4\_\_\_ 8w 8w( ) | 6) \_\_3b\_\_ ÷ \_\_9\_\_ 10b + 20 2b² + 4b = \_\_3b\_\_ x 2b( ) 10( ) 9 |
| 7) a² - a – 6 x a² + 3a – 10 a² + 6a + 5 a² + a – 12= ( )( ) x ( )( ) ( )( ) ( )( ) | 8) c² + 12c + 32 ÷ c² - 3c – 28 c² - 5c + 4 c² + c – 2= ( )( ) x ( )( ) ( )( ) ( )( ) |
| 9) 2f² - 11f + 12 x 5f² + 42f + 16 3f² + 23f – 8 2f² - f – 3= ( )( ) x ( )( ) ( )( ) ( )( ) | 10) 5g² + 21g + 4 ÷ 10g² - 13g - 3  6g² + 7g + 2 2g² 17g + 8= ( )( ) x ( )( ) ( )( ) ( )( ) |

**Multiplying and Dividing Algebraic Fractions RED**

|  |  |
| --- | --- |
| 1) 7 x 2 8v 5v | 2) 6t ÷ 3 5 4t |
| 3) \_6\_ x 5j – 5 7j – 7 6j = \_\_6\_\_ x 5(j - 1)  7(j - 1) 6j | 4) 6x + 3 ÷ 10x + 5 8x 4 = 3(2x + 1) x \_\_4\_\_ 8x 5(2x + 1) |
| 5) 21w – 14 x \_\_\_4\_\_\_\_ 8w 24w² - 16w = 7(3w - 2) x \_\_\_4\_\_\_ 8w 8w(3w - 2) | 6) \_\_3b\_\_ ÷ \_\_9\_\_ 10b + 20 2b² + 4b = \_\_3b\_\_ x 2b(b + 2) 10(b + 2) 9 |
| 7) a² - a – 6 x a² + 3a – 10 a² + 6a + 5 a² + a – 12= (a - 3)(a + 2) x (a + 5)(a - 2) (a + 1)(a + 5) (a + 4)(a - 3) | 8) c² + 12c + 32 ÷ c² - 3c – 28 c² - 5c + 4 c² + c – 2= (c + 4)(c + 8) x (c + 2)(c - 1) (c - 4)(c - 1) (c + 4)(c - 7) |
| 9) 2f² - 11f + 12 x 5f² + 42f + 16 3f² + 23f – 8 2f² - f – 3= (2f – 3)(f - 4) x (f + 8)(5f + 2) (3f - 1)(f + 1) (2f - 3)(f + 1) | 10) 5g² + 21g + 4 ÷ 10g² - 13g - 3  6g² + 7g + 2 2g² 17g + 8= (5g + 1)(g + 4) x (2g + 1)(g + 8) (2g + 1)(3g + 2) (5g + 1)(2g - 3) |