**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) |