**№5 Действия над рациональными числами**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 2-5 | 7-13 | 6-10 | 4-14 | 8-18 | 17-22 | 1-10 | 3-104 | 72-82 |
| 5\*(-2) | 6\*(-3) | 3\*(-12) | 5\*(-13) | 10\*(-2) | 4\*(-6) | 12\*(-1) | 7\*(-11) | 41\*(-2) |
| -32\*2 | -8\*5 | -12\*7 | -7\*10 | -37\*2 | -9\*9 | -1\*91 | -15\*4 | -4\*9 |
| -10+5 | -8+3 | -19+7 | -11+1 | -45+15 | -25+12 | -83+2 | -17+5 | -27+7 |
| -18\*0 | -9\*0 | -63\*0 | -26\*0 | -45\*0 | -51\*0 | -29\*0 | -38\*0 | -94\*1 |
| 5-(-3) | 6-(-4) | 2-(-11) | 1-(-5) | 17-(-7) | 29-(-11) | 16-(-6) | 19-(-4) | 16-(-14) |
| 26:(-1) | 31:(-31) | 35:(-5) | 54:(-9) | 48:(-6) | 30:(-6) | 24:(-6) | 51:(-3) | 100:(-2) |
| -7\*(-2) | -25\*(-4) | -8\*(-7) | -5\*(-16) | -6\*(-12) | -8\*(-8) | -12\*(-5) | -9\*(-11) | -8\*(-5) |
| -7:(-1) | -42:(-7) | -95:(-5) | -16:(-4) | -75:(-3) | -24:(-6) | -51:(-3) | -10:(-5) | -9:(-9) |
| 3+(-6) | 12+(-8) | 9+(-5) | 27+(-13) | 50+(-25) | 16+(-16) | 26+(-29) | 14+(-16) | 17+(-13) |
| -5+(-4) | -3+(-9) | -14+(-4) | -12+(-2) | -8+(-22) | -8+(-6) | -50+(-1) | -17+(-7) | -44+(-5) |
| 0-25 | 0-34 | 0-(-21) | 0+(-29) | 0-(-88) | 0-19 | 0+(-71) | 0-(-43) | 0+(-62) |
| -2-3 | -27-8 | -17-17 | -34-35 | -18-12 | -28-4 | -1-26 | -25-50 | -10-10 |

**№6 ДЕЙСТВИЯ НАД СТЕПЕНЯМИ 1**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| А | | Б | | С | |
| 1.  2.  3.  4.  5.  6.  7.  8.  9.  10. | a3• a  a5•a  a •a7  y2 •y3  b •b6  c5 •c12  t10•t13  d7 •d  r4 •r51  q8 •q3 | 1.  2.  3.  4.  5.  6.  7.  8.  9.  10. | a3 •a • a8  b4 •b12• b13  c13•c8•c2  d4•d •d10  k13•k8•k  m3•m5•m8  p3•p • p7•p28  q •q2•q3  v7•v6•v  u13•u12•u5 | 1.  2.  3.  4.  5.  6.  7.  8.  9.  10. | 2a2 • 2a2  33 •3a • a7  42 •t •42t3  32 •3• 3a  m5 •23 •2m  (-1m) • (-1m)3  m3• 52•53 • m2  x • x5 •6x2  y5 y • 5y3  7 •x2•7x3 |

№7 **ДЕЙСТВИЯ НАД СТЕПЕНЯМИ 2**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| x5x8 | y4y9 | yy12 | b8b15 | m3m8 | c7c12 | bb2 |
| (c4)2 | (b3)5 | (k7)3 | (m4)8 | (p9)9 | (a4)2 | (b3)3 |
| m m3 m | k k k | c c4 c10 | p3 p p3 | d10 d7 d0 | a3 a2 a0 | f f0 f7 |
| 56 :54 | 1020 :1018 | 117 :115 | 24 :23 | 37 :35 | 129 :127 | 980 :978 |
| xn x5 | b10 bn | k8 kn | p21 pk | dn dm | x10 xp | y5 ym |
| a3(a3)2 | b4 (b7)3 | m3(m4)2 | (x2)3 x5 | (p4)2 p0 | (a7)0 a | a (a2)0 |
| 3,5\*2m | 7\*4k | http://festival.1september.ru/articles/312664/img1.JPG\*2d | http://festival.1september.ru/articles/312664/img2.JPG\*49p | http://festival.1september.ru/articles/312664/img3.JPG\*http://festival.1september.ru/articles/312664/img3.JPGk | 8x\*5 | 9d\*9 |
| (2x2)2 | (3d4)3 | (2a7)3 | (http://festival.1september.ru/articles/312664/img1.JPGm4)2 | (http://festival.1september.ru/articles/312664/img4.JPGd5)2 | (http://festival.1september.ru/articles/312664/img5.JPGk3)2 | (10x3)3 |
| (x3)2 (x2)3 | (x7)0 (x2)2 | (m3)4 (m2)2 | (a4)4 (a2)0 | (b5)3 (b3)2 | (h0)5 (h4)2 | (n2)7 (n9)2 |
| (2abc)3 | (3kmn)2 | (8c2d3)2 | (http://festival.1september.ru/articles/312664/img3.JPGaf3)2 | (http://festival.1september.ru/articles/312664/img2.JPGbc)2 | (4c2k)2 | (5df2)3 |
| 2a3b\*4ab4 | -5a3k\*3a | http://festival.1september.ru/articles/312664/img2.JPGb3x\*49b4x3 | -3k2d\*4d4 | -7h3n4\*2hn | 8cd\*(-http://festival.1september.ru/articles/312664/img1.JPG) | 5n4m5\*3m5n |

**№8 Квадрат суммы, квадрат разности**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| А | | | Б | | | С |
| (а+1)2  (а+2)2  (3+а)2  (4+а)2  (а+5)2  (6+а)2  (а+8)2  (а+10)2 | 1.  2.  3.  4.  5.  6.  7.  8. | (а-1)2  (а-2)2  (3-а)2  (4-а)2  (а-5)2  (6-а)2  (а-8)2  (10-а)2 | | 1.  2.  3.  4.  5.  6.  7.  8. | (а+7)2  (а-7)2  (9-а)2  (а+9)2  (2а-1)2  (2а+1)2  (2а-2)2  (2а+2)2 | | |

**№9 Арифметические операции над многочленами.**

|  |  |  |  |
| --- | --- | --- | --- |
| А | | Б | |
|  | (2a2-3ab)• (-5a) |  | 4xy(2x+0,5y-1) |
|  | 3c (5c+2xy) |  | x2•(x+2x) |
|  | (4x2+3)•(-2x) |  | 0,1a(4a+5) |
|  | (-10ab+6x)•2x |  | (3a2+0,2b2+ab)•(-0,5a) |
|  | (-5a)•(3a-5+c) |  | (35a2b-28a4):7a2 |
|  | (5a2-3ab)•(-2b2) |  | (-5x2-9x+2)•(-3x) |
|  | (-3x)•( 3x2-5) |  | (0,4-x)•(-2x3) |
|  | (-4y)•(-2х2+0,5x2) |  | 2x•(3x3+x2-5x) |
|  | 0,5a•(24a+7x2) |  | -3x2(3x+2,5) |
|  | (3+x)•(-0,2x) |  | (10y3+2y6):2y2 |
|  | (2h-5)•(-6h) |  | 5a(a-2b)(-2a) |
|  | 0,5a(6a+3-4b) |  | –3a2(-a+9a2-2) |

**№10** **ДЕЙСТВИЯ НАД СТЕПЕНЯМИ 3**

|  |  |  |  |
| --- | --- | --- | --- |
| А | | Б | |
| 1.  2.  3.  4.  5.  6.  7.  8.  9.  10.  11.  12. | (2а)4  (-2p)3  (mn)6  (3b)5  (-5q)4  (ab)4  (6n)3  (-7c)2  (pq)3  (8n)2  (-3d)5  (cd)10 | 1.  2.  3.  4.  5.  6.  7.  8.  9.  10.  11.  12. | (-ac)17  (yx3)2  (3p2r8)5  (-am)8  (a2bc3)4  (6a5bx3)3  (-rs)3  (p3cd6)18  (10a2b5)4  (-xy)12  (u5v4t7)9  (4r5q8p9)2 |