1. $5ab^2 - \left(\frac{1}{2}ab^2 + ab^2\right) - \frac{3}{4}ab^2 =$ $\frac{11}{4}ab^2$

2. $\frac{7}{3}t^2y - t^2\left(3y - \frac{1}{2}y\right) + \left(-\frac{1}{6}t^2y\right) =$ $-\frac{1}{3}t^2y$

3. $(-5ab)^2 \cdot (-ab) + (-14\,a^3b^3) - (-10\,a^3b^3) =$ $-29\,a^3b^3$

4. $\left(\frac{1}{4}ab - \frac{1}{6}ab\right) \cdot \left(-3a + \frac{1}{2}a\right) + \frac{5}{12}a^2b =$ $\frac{5}{24}a^2b$

5. $\frac{5}{3}x^3z \cdot \left(-\frac{3}{2}x^3z^2\right) + \frac{14}{5}x^8z^9 : \left(2x^2z^6 - \frac{13}{10}x^2z^6\right) =$ $\frac{3}{2}x^6z^3$

6. $\left[\frac{1}{2}x^3y^4 \cdot \left(-\frac{2}{3}xy^2\right) : (2x^3y^3)\right]^2 =$ $\frac{1}{36}x^2y^6$

7. $\left[\left(-mn + \frac{5}{6}mn\right) - \frac{mn}{3} + \frac{mn}{2}\right] \cdot (-2m) =$ 0

8. $\frac{a^3b}{2} - \frac{1}{4}a\,(-a^2b) - \left[\left(-7a + \frac{1}{2}a\right) \cdot (-a^2b + 2a^2b)\right] =$ $\frac{29}{4}a^3b$

9. $[a^2\,(b + 3b) + 2b\,(a^2 - 6a^2)] : (3a^2) =$ $-2b$

10. $[(xy^2)^3x^2]^4 : \left(-2x^3y \cdot \frac{1}{3}x^4y^3\right)^2 : (xy^4)^4 =$ $\frac{9}{4}x^2$

11. $\left[\frac{1}{2}x^3y \cdot (-2xy) \cdot \left(-\frac{3}{5}x^2y^3\right)^2\right] : \left(\frac{3}{5}x^3y^2\right)^2 =$ $-x^2y^4$

12. $3ab^2 \cdot 2b\,(-5ab) + 2b^2\left[-\frac{1}{4}ab + \frac{3}{2}a\left(-\frac{1}{2}b\right)\right]^2 =$ $-28\,a^2b^4$

13. $(a + 2a)^2\,b^3 - b\,(4ab)^2 + a^5b^6 : (a^3b^3) =$ $-6\,a^2b^3$

14. $\frac{1}{2}\{4a^2b^3y - 3a\,[4a^5b^7y : (2a^4b^4)]\}^2 : [3a^4b^3 - 2b\,(a^2b)^2] =$ $2\,b^3y^2$

15. $[6a^4b^6 : (-2ab^3) + (ab)^3]^2 - [-2a^2 \cdot (-ab^2) \cdot (a^3b^7) : b^3] =$ $2\,a^6b^6$

16. $[x^3y^6 : (2x)]^3 : \left\{3 \cdot \left[\frac{1}{2}x^3y^8 - \frac{1}{3}xy^4 \cdot (xy^2)^2\right]^2\right\} =$ $\frac{3}{2}y^2$

17. $3a^3x^6 - 2a \cdot (a^3x^4)^2 : (a^2x)^2 - a \cdot (a^2x^5 - 3a^2x^5) \cdot x =$ $3\,a^3x^6$