

ALGEBRA 3E

- 1) $\left[\left(\frac{2}{5}x^2 + \frac{3}{2}x^2 - \frac{1}{10}x^2 \right) \cdot \frac{50}{72}y - \left(\frac{28}{15}x^3y^2 \right) : \left(\frac{19}{10}xy + \frac{1}{5}xy + \frac{7}{2}xy \right) \right] : \frac{1}{6}xy \quad \left[\frac{11}{2}x \right]$
- 2) $\left[\frac{2}{5}a^2b \left(\frac{3}{2}b + \frac{9}{4}b \right) + \left(\frac{4}{3}a^3b^2 + \frac{4}{5}a^3b^2 \right) : \left(\frac{16}{5}a \right) \right] \cdot \left(\frac{1}{13}b + \frac{3}{26}b \right) - \frac{1}{6}a^2b^3 \quad \left[\frac{1}{4}a^2b^3 \right]$
- 3) $\left[-\frac{4}{5}x^3y^2 - \left(-\frac{1}{2}x^4y^2 - \frac{3}{7}x^4y^2 + \frac{2}{3}x^4y^2 \right) : \frac{11}{21}x - \frac{15}{28}x^4y^3 : \left(-\frac{5}{7}xy \right) \right] : \left(\frac{5}{4}x^2 - \frac{7}{2}x^2 \right) \quad \left[-\frac{1}{5}xy^2 \right]$
- 4) $xy^2 + \left(-\frac{2}{3}x^3y^3 - \frac{5}{6}x^3y^3 + x^3y^3 \right) : \left(-\frac{3}{4}x^2y \right) - \frac{15}{32}xy \cdot \left(\frac{7}{5}y - \frac{1}{3}y \right) \quad \left[\frac{7}{6}xy^2 \right]$
- 5) $\left(\frac{2}{3}abc^3 + \frac{3}{10}abc^3 - \frac{2}{5}abc^3 \right) : \left(\frac{1}{15}c^2 \right) + \left(\frac{2}{3}c - \frac{1}{4}c \right) \left(-\frac{6}{5}ab \right) \quad [8abc]$
- 6) $\left[-\frac{3}{2}xy^2 \cdot \left(\frac{1}{9}x^4y^3 \right) - \frac{3}{5}x^3y \cdot \left(-\frac{5}{6}x^2y^4 \right) \right] : \left(\frac{8}{6}x^4y^4 \right) - \frac{1}{3}xy \quad \left[-\frac{1}{12}xy \right]$
- 7) $\left[\left(\frac{7}{9}a^3b^4c \right) : \left(\frac{14}{3}a^2b^2 \right) + 4ab^2c \right] \left(\frac{1}{25}ab \right) - \frac{1}{6}a^2b^3c \quad [0]$
- 8) $\left[\left(\frac{7}{10}xy \right) \left(\frac{5}{7}x^2y^2 - \frac{5}{3}x^2y^2 \right) : \left(\frac{1}{9}x^2y^2 + \frac{2}{3}x^2y^2 \right) + \frac{4}{21}xy \right] \cdot \left(\frac{3}{2}y \right) + \frac{3}{4}xy^2 \quad \left[-\frac{1}{4}xy^2 \right]$
- 9) $\left[\left(\frac{3}{4}a^3b^5 \right) : \left(\frac{9}{8}a^2b^2 - \frac{1}{2}a^2b^2 \right) - \frac{3}{10}ab^3 \right] : \left(\frac{4}{5}ab^2 \right) - \frac{3}{8}b \quad \left[\frac{3}{4}b \right]$
- 10) $\left(-\frac{1}{4}x^3y^3 \right) : \left[\left(-\frac{13}{5}x^4y^3 \right) : \left(\frac{8}{7}xy - \frac{2}{5}xy \right) + \frac{3}{4}x^3y^2 \right] - \frac{7}{11}y \quad \left[-\frac{6}{11}y \right]$
- 11) $\left[\left(\frac{2}{5}x + \frac{1}{2}x - \frac{3}{10}x \right) \cdot \frac{5}{3}y^2 - \left(\frac{10}{3}y \right) \cdot \left(\frac{7}{6}xy - \frac{1}{2}xy \right) \right] : \frac{1}{6}xy \quad \left[-\frac{22}{3}y \right]$
- 12) $\left[\frac{5}{2}ab^2 \left(\frac{2}{3}b - \frac{1}{2}b \right) + \left(\frac{3}{4}a^2b^3 + \frac{1}{10}a^2b^3 \right) : \left(\frac{17}{5}a \right) \right] - \left(\frac{1}{2}ab^3 + \frac{1}{5}ab^3 - \frac{7}{10}ab^3 \right) \quad \left[\frac{2}{3}ab^3 \right]$