1. Bez   Terme   Lösungen AB 2

1. Schreibe kürzer:
    a) $e \cdot 4f = \underline{\underline{4ef}}$
    b) $2p \cdot 3q = \underline{\underline{6pq}}$
    c) $3x \cdot 4y = \underline{\underline{12xy}}$
    d) $5y \cdot 7z = \underline{\underline{35yz}}$
    e) $7a \cdot 12b = \underline{\underline{84ab}}$
    f) $15r \cdot 14s = \underline{\underline{210rs}}$
    g) $8c \cdot 16d = \underline{\underline{128cd}}$
    h) $11i \cdot 19j = \underline{\underline{209ij}}$

2. Dividiere:
    a) $5x : 5 = \underline{\underline{x}}$
    b) $12y : 2 = \underline{\underline{6y}}$
    c) $36f : 9 = \underline{\underline{4f}}$
    d) $42mn : 6 = \underline{\underline{7mn}}$
    e) $72pq : 3 = \underline{\underline{24pq}}$
    f) $135xyz : 15 = \underline{\underline{9xyz}}$
    g) $182abc : 14 = \underline{\underline{13abc}}$
    h) $306uvw : 9 = \underline{\underline{34uvw}}$

3. Schreibe kürzer:
    a) $2x \cdot 3y \cdot 4z = \underline{\underline{24xyz}}$
    b) $3a \cdot 6b \cdot 4c = \underline{\underline{72abc}}$
    c) $5m \cdot 9n \cdot 3o = \underline{\underline{135mno}}$
    d) $12a \cdot 3b \cdot 6c = \underline{\underline{216abc}}$
    e) $4p \cdot 11q \cdot 7r = \underline{\underline{308pqr}}$
    f) $5r \cdot 4s \cdot 13t = \underline{\underline{260rst}}$

4. Schreibe so einfach wie möglich:
    a) $8f \cdot 3f \cdot 2f = \underline{\underline{48f^3}}$
    b) $2v \cdot 3v \cdot 5v \cdot 7v = \underline{\underline{210v^4}}$
    c) $(2d)^2 = 2d \cdot 2d = \underline{\underline{4d^2}}$
    d) $(3e^2)^3 = 3e^2 \cdot 3e^2 \cdot 3e^2 = \underline{\underline{27e^6}}$
    e) $3f^2 \cdot f^3 = \underline{\underline{3f^5}}$
    f) $3t^3 \cdot 4t^4 = \underline{\underline{12t^7}}$
    g) $(3f^3)^3 = 3f^3 \cdot 3f^3 \cdot 3f^3 = \underline{\underline{27f^9}}$
    h) $(5a^5)^4 = 5a^5 \cdot 5a^5 \cdot 5a^5 \cdot 5a^5 = \underline{\underline{625a^{20}}}$

5. Vereinfache:
   a) $2a^2 \cdot 3b^2 = \underline{6a^2b^2}$
   b) $2a^2b \cdot 4b^2c = \underline{8a^2b^3c}$
   c) $4c^2d^2 \cdot 5cde^2 = \underline{20c^3d^3e^2}$
   d) $3p^2qr^2 \cdot 7pq^2r = \underline{21p^3q^3r^3}$
   e) $7r^2s^2t^3 \cdot 8rs^2t^3 = \underline{56r^3s^4t^6}$
   f) $(4xy^2)^3 = 4xy^2 \cdot 4xy^2 \cdot 4xy^2 = \underline{64x^3y^6}$

6. Dividiere:
   a) $51f^2g^2 : 3fg = \underline{17fg}$
   b) $39c^4d^3 : 13c^2d^3 = \underline{3c^2}$
   c) $34f^4g^3 : 17fg^2 = \underline{2f^3g}$
   d) $52c^3d^5 : 4cd^2 = \underline{13c^2d^3}$
   e) $76k^3l^4m^5 : 19k^2m^2 = \underline{4kl^4m^3}$
   f) $78t^6u^3v^4 : 6t^3v^2 = \underline{13t^3u^3v^2}$

7. Vereinfache so weit wie möglich:
   a) $14a^2 + 15a + 3a^2 + 2a^3 + a^2 + 7a = \underline{2a^3 + 18a^2 + 22a}$
   b) $3a^2b^2 \cdot 4ab^3 \cdot 5b^2 = \underline{60a^3b^7}$
   c) $7c^2 + 9d + 3c + 24d + 8c^2 + 25c + 16 = \underline{15c^2 + 28c + 33d + 16}$
   d) $(6a^3b^4)^3 = 6a^3b^4 \cdot 6a^3b^4 \cdot 6a^3b^4 = \underline{216a^9b^{12}}$
   e) $68c^3d^4 : 17c^3d^3 = \underline{4d}$
   f) $5b^3 + 7c + 9b^3 + 11 - 3c - 11b^3 + 6 = \underline{3b^3 + 4c + 17}$
   g) $3p^2q \cdot 5p^2q^2 \cdot 22p = \underline{330p^5q^3}$
   h) $5p^2 + 17q + 12r + 6p + 15 - 3p^2 - 6q - 9 + 3p = \underline{2p^2 + 9p + 11q + 12r + 6}$