

Worksheet 2018-8EC-00007(4)

(1) Choose the correct answer:

(a) $((-2^2)^3)^4 = \dots$

A. -2^{24}

B. $(-2)^9$

C. $(-2)^{24}$

D. -2^9

(b) $b^m \times 2b^n = \dots$

A. $2b^{2mn}$

B. $2b^{mn}$

C. $2^{mn}b^{mn}$

D. $2b^{m+n}$

(c) The scientific notation for 12 003 is:

A. $1,2003 \times 10^3$

B. $1,23 \times 10^4$

C. $1,2003 \times 10^4$

D. 12×10^3

(2) Which of the following is equal to 1?

A. $4^0 \times 3^0 \times 2^0$

B. $4^0 + 3^0 + 2^0$

C. $4^0 - 3^0 + 2^0$

D. $4^0 \div 3^0 \div 2^0$

(3) Simplify the following by using exponential laws:

(a) $\left(\frac{a}{b}\right)^2 \times \left(\frac{b}{a}\right)^2$

(b) $\sqrt{5^{16m}2^{2mn}}$

(c) $(-2)^3 \times (-2)^4 \times (-1)^{18}$

(d) $-k^2(2k + 3p)^0$

- (4) Calculate the value of P if $3^{2010} + 3^{2011} + 3^{2012} = P \cdot 3^{2010}$
Show all steps.

- (5) Which of the following have the greater value?

A. 0,002

C. $\sqrt{0,000004}$

B. $\frac{2}{10\,000}$

D. $(0,02)^4$
