



MATHEMATICS

Algebra 1 – 7th and 8th Grade

NTI DAY 10

Please complete the attached assignment and turn in within 3 days of the NTI Day.

Coach Gilly

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Simplify. Your answer should contain only positive exponents.

1) $(3n^3)^2 \cdot 2n^3$

- A) $\frac{2}{n^7}$ B) $54n^3$
 C) $18n^9$ D) $\frac{1}{n^2}$

2) $(x^{-3})^2 \cdot x^3$

- A) $\frac{1}{x^3}$ B) $\frac{6}{x^4}$
 C) $\frac{x^5}{3}$ D) $\frac{x^{12}}{8}$

3) $x^3 \cdot 3x^2$

- A) $3x^5$ B) $8x^{15}$
 C) $\frac{1}{8x^{12}}$ D) $\frac{64}{x^{15}}$

4) $2n \cdot (3n^{-3})^2$

- A) $\frac{8}{n^8}$ B) $\frac{18}{n^5}$
 C) $576n^{20}$ D) $81n^8$

5) $(2k^{-2} \cdot k^2 \cdot 2k^2)^{-3}$

- A) $\frac{2}{9k^4}$ B) $\frac{1}{27}$
 C) $\frac{1}{64k^6}$ D) $27k^{15}$

6) $(2n^{-3} \cdot 2n^2)^2$

- A) $\frac{18}{n^3}$ B) $\frac{16}{n^2}$
 C) $\frac{2}{n^8}$ D) $108n^7$

7) $(2r^{-1})^3 \cdot r$

- A) $4r$ B) $\frac{6}{r}$
 C) $\frac{3r^5}{4}$ D) $\frac{8}{r^2}$

8) $2b^{-3} \cdot (b^{-1})^3$

- A) $\frac{2}{b^6}$ B) $\frac{6}{b^2}$
 C) $2b^7$ D) $\frac{81}{b^{10}}$

9) $(2x^2 \cdot x^3)^2$

- A) $\frac{9}{x^7}$ B) $4x^{10}$
 C) $\frac{1}{27x^3}$ D) $4x^7$

10) $(k^{-2} \cdot k^3 k^2)^3$

- A) $\frac{k^4}{2}$ B) 9
 C) $27k^{10}$ D) k^9