Trig Review Quiz 0-2 B

_____ 1. Simplify $\sqrt[3]{a^6b^4c^9}$

A. $abc^3\sqrt[3]{ab}$ B. $a^2bc^3\sqrt[3]{ab}$ C. $a^2bc^3\sqrt[3]{b}$ D. None of the above

_____ 2. Simplify $(x-1)(x^2+2x+3)$

A. x^3+x^2+x-3 B. x^3+2x^2+x-3
C. x^3+x^2-x-3 D. x^3+x^2+2x-3

_____3. $\left(\frac{5}{3}\right)^{-2}$ NO CALCULATOR ALLOWED!

A. $\frac{25}{9}$ B. $\frac{9}{25}$ C. $-\frac{9}{25}$ D. $-\frac{25}{9}$

_____ 4. What is the domain of f(x) = $\frac{3x-5}{x-12}$

A. $\mathbb{R}: x \neq 12$ B. $\mathbb{R}: x \geq 12$ C. $\mathbb{R}: x \leq 12$ D. $\mathbb{R}: x > 12$

_____5. Factor $16a^4b^2 + 20ab^5$

A. $ab^2(16a^3 + 20b^3)$ B. $ab(16a^3b + 20b^4)$
C. $4ab^2(4a^3 + 5b^3)$ D. None of the above

_____6. Factor $x^3 - 8$

A. $(x-2)(x^2+2x-4)$ B. $(x+2)(x^2+2x-4)$
C. $(x+2)(x^2+2x+4)$ D. $(x-2)(x^2+2x+4)$

_____ 7. Simplify $\frac{9 \pm \sqrt{18}}{3}$

A. $3 \pm i\sqrt{3}$ B. $3 \pm i\sqrt{2}$ C. $3 \pm \sqrt{3}$ D. $3 \pm \sqrt{2}$

_____8. If f(x) = 2x – 1 and g(x) = 2x, what is f(g(x))?

A. 4x – 1 B. 4x – 2 C. 4x – 4 D. None of the above

_____ 9. Simplify $\sqrt[3]{16x^4y^8}$

A. $4xy^2\sqrt[3]{2xy^2}$ B. $2xy\sqrt[3]{2xy^2}$ C. $2xy^2\sqrt[3]{2xy^2}$ D. None of the above

_____10. Simplify $\left(2a^{-3}\right)^{-2}$

A. $\frac{4}{a^6}$ B. $4a^6$ C. $\frac{a^6}{4}$ D. $\frac{a^5}{4}$