Pre-Calc. 11   LG 10A QUIZ (Formative Assessment)

Marking Teacher: _____   **Name:** _____

Student #: _____

1. Express the mixed radical as an entire radical.

   a) $3\sqrt{5}$ b) $2x\sqrt{3}$ c) $2\sqrt[3]{5x^2}$

2. Express the entire radical as a mixed radical.

   a) $\sqrt{40}$ b) $\sqrt[3]{54y^5}$ c) $\sqrt{m^6n^3}$

3. Simplify and identify any restrictions where possible.

   a) $-2\sqrt{45} + \sqrt{80}$ b) $4\sqrt[3]{m^4} - 5m\sqrt[3]{8m}$

4. Order from the least to the greatest.

   $2\sqrt{7}, \quad 5, \quad 4\sqrt{2}$

5. Multiply, then simplify.

   a) $3\sqrt{5}\left(7\sqrt{2}\right)$ b) $-5\sqrt{8x}\left(2\sqrt{3}\right)$ c) $\sqrt[3]{81y^4}\left(\sqrt[3]{2y}\right)$
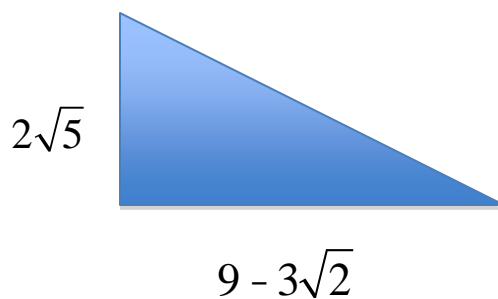
6. Expand and simplify.

$$\left(4 - 9\sqrt{5}\right)\left(4 + 9\sqrt{5}\right)$$

7. Simplify by rationalizing $\dfrac{12}{\sqrt{5}}$.

8. Find the exact area of the rectangle.

$2 + 5\sqrt{3}$

20

9. Find the exact area of the triangle.

$2\sqrt{5}$

$9 - 3\sqrt{2}$

10. Simplify by conjugating $\dfrac{7\sqrt{2}}{\sqrt{6} + 8}$.

Directions: ☐ **See me about this**   ☐ **Move on to next guide**   ☐ **Review and redo**

Pre-Calc. 11   LG 10B QUIZ (Formative Assessment)

Marking Teacher: _____   **Name:** _____

Student #: _____

1. Express the mixed radical as an entire radical.

   a) $-2\sqrt{5}$ b) $2x\sqrt{3x^3}$ c) $2\sqrt[3]{2xy^2}$

2. Express the entire radical as a mixed radical.

   a) $\sqrt{60}$ b) $\sqrt[3]{16x^5}$ c) $\sqrt{8c^4d^5}$

3. Simplify and identify any restrictions where possible.

   a) $5\sqrt{8} - \sqrt{18}$ b) $6\sqrt[3]{24t^5} + 2\sqrt[3]{27t^8}$

4. Order from the least to the greatest.

   $8,\ 2\sqrt{8},\ 3\sqrt{4}$

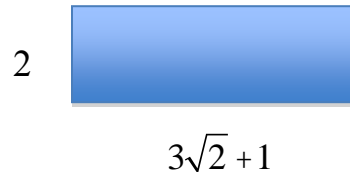5. Multiply, then simplify.

   a) $2\sqrt{3}\left(-4\sqrt{5}\right)$ b) $3\sqrt[3]{2}\left(2\sqrt[3]{5x}\right)$
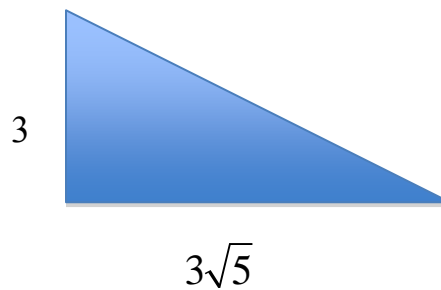
6. Expand and simplify.

$$\left(3 - 4\sqrt{2}\right)\left(3 + 4\sqrt{2}\right)$$

7. Simplify by rationalizing $\dfrac{-2\sqrt{5}}{\sqrt{8}}$.

8. Find the exact area of the rectangle.

2

$3\sqrt{2} + 1$

9. Find the exact area of the triangle.

3

$3\sqrt{5}$

10. Simplify by conjugating $\dfrac{5\sqrt{2}}{2 - \sqrt{3}}$.

Directions: ☐ **See me about this** ☐ **Move on to next guide** ☐ **Review and redo**