Bellwork Alg 2 Monday, November 26, 2018

1. In the xy-plane, the parabola with equation $y = (x - 11)^2$ intersects the line with equation $y = 25$ at two points, A and B. What is the length of $\overline{AB}$?

A. 10 B. 12 C. 14 D. 16

Write each in radical form.

2. $5G^{\frac{7}{2}}$

3. $(2A)^{-\frac{3}{5}}$

4. B^{L31}

Write in exponential form.

5. $3 \cdot \sqrt[2]{m^7}$

6. $\sqrt[3]{7a^2}$

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ANSWERS

1. In the xy-plane, the parabola with equation $y = (x-11)^2$ intersects the line with equation $y = 25$ at two points, A and B. What is the length of $\overline{AB}$?

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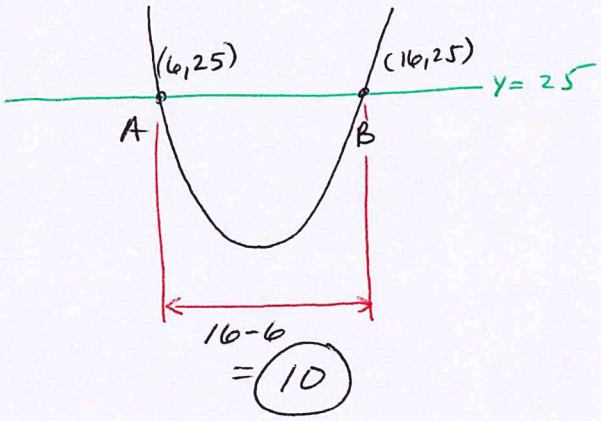
USING SUBSTITUTION



$\sqrt{25} = \sqrt{(x-11)^2}$

$\pm 5 = x - 11$

$+11 \quad +11$

$x = +5+11 = 16$

$-5+11 = 6$

$x = 6, 16$

Write each in radical form.

2. $5G^{\frac{7}{2}}$

$5\sqrt{G^7}$ or $5(\sqrt{G})^7$

3. $(2A)^{-\frac{3}{5}}$

$\frac{1}{\sqrt[5]{(2A)^3}}$ or $\frac{1}{(\sqrt[5]{2A})^3}$ or $\sqrt[5]{\frac{1}{(2A)^3}}$

4. $B^{1.31}$ $\quad 1.31 = 1\frac{31}{100} = \frac{131}{100}$

$B^{\frac{131}{100}}$

$= \sqrt[100]{B^{131}}$ or $(\sqrt[100]{B})^{131}$

Write in exponential form.

5. $3 \cdot \sqrt[2]{m^7}$

$3m^{\frac{7}{2}}$

6. $\sqrt[3]{7a^2}$

$(7a^2)^{1/3}$ or $7^{1/3}a^{2/3}$