Algebra 2B Bellwork Tuesday, September 5, 2017

Factor each quadratic.

1. $6m^2 - 11m + 3$

2. $x^2 + 3x - 40$

Simplify each radical expression.

3. $\sqrt{72p^4}$

4. $\sqrt[3]{56w^{15}}$

Simplify each. Make sure exponents in your answer are neither zero nor negative.

5. $\frac{24a^3b^{-2}}{3a^{-4}b^{-9}}$

6. $(5c^{-4}d^3)^2(2cd^2)$

Algebra 2B Bellwork Tuesday, September 5, 2017 Answers

Factor each quadratic.

1. $6m^2 - 11m + 3$

1st: 18, −9, −2, −11

2nd:

	2m	−3
3m	$6m^2$	−9m
−1	−2m	+3

$(2m-3)(3m-1)$

2. $x^2 + 3x - 40$

−40, +8, −5, +3

$(x+8)(x-5)$

Simplify each radical expression.

3. $\sqrt{72p^4}$

$\sqrt{72} \cdot \sqrt{p^4}$

$\sqrt{36 \cdot 2} \cdot \sqrt{p^4}$

$6\sqrt{2} \cdot p^2$

$= 6p^2\sqrt{2}$

4. $\sqrt[3]{56w^{15}}$ $2^3 = 8$

$\sqrt[3]{56} \cdot \sqrt[3]{w^{15}}$

$\sqrt[3]{8 \cdot 7} \cdot \sqrt[3]{w^{15}}$

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

$= 2w^5\sqrt[3]{7}$

Simplify each. Make sure exponents in your answer are neither zero nor negative.

5. $\frac{24a^3b^{-2}}{3a^{-4}b^{-9}}$

$\frac{24}{3} \cdot \frac{a^3}{a^{-4}} \cdot \frac{b^{-2}}{b^{-9}}$

$= 8 \cdot a^{3--4} \cdot b^{-2--9}$

$= 8a^7b^7$

6. $(5c^{-4}d^3)^2(2cd^2)$

$(25c^{-8}d^6)(2cd^2)$

$50c^{-7}d^8$

$= \frac{50d^8}{c^7}$