BECA / Dr. Huson / Geometry 10th Grade
Unit 11: Algebra II introduction
24 April 2020

Name: SOLUTIONS

11.2 Homework: Varied literals and radicals
Do not use a calculator or convert values to decimals

1. What scanning app did you use to convert a photo of your work to a pdf?

☒ Adobe Scan
☐ Evernote Scannable
☐ Genius Scan
☐ Other/none _____

Simplify each expression

2. (a) $2x\sqrt{3} + 2x - 3x\sqrt{3}$

$= 2x - x\sqrt{3}$

(b) $3\theta - 2\alpha + 2\alpha - \theta$

$= 2\theta$

(c) $2x\sqrt{9} + \sqrt{18} \times \sqrt{2}$

$= 2x(3) + \cancel{3\sqrt{2}\sqrt{2}}\ \sqrt{36}$
$= 6x + 6$

(d) $\pi + 4\pi\sqrt{7} - 4\pi\sqrt{7} + 1$

$\pi + 1$

(e) $3\sin\theta + \cos\gamma - \sin\theta$

$2\sin\theta + \cos\gamma$

(f) $(-\sqrt{5})^2 - (\sqrt{5x})^2 - 3x + 1$

$= 5 - 5x - 3x + 1$
$= -8x + 6$

Solve for y or b, respectively

3. (a) $\frac{1}{4}x + \frac{3}{2}y = \frac{9}{2}$

$y = \frac{2}{3}\left(-\frac{1}{4}x + \frac{9}{2}\right)$

$y = -\frac{1}{6}x + 3$

(b) $kx + my = n$

$y = -\frac{k}{m}x + \frac{n}{m}$

4. (a) $\tan\theta = \frac{a}{b}$

$b = a\tan\theta$

(b) $a^2 + b^2 = c^2$

$b = \pm\sqrt{\cancel{a}\ c^2 - a^2}$