Algebra 1 ECA Remediation Name Answer Key

Homework 29.3

Simplify.

1) $\sqrt{32}$

$2 \cdot 2\sqrt{2}$

$4\sqrt{2}$

2) $-6\sqrt{288}$

$-6 \cdot 12 \cdot 2 \cdot 3 \cdot \sqrt{2}$

$-6 \cdot 12\sqrt{2}$

$-72\sqrt{2}$

3) $\sqrt{196k}$

$2 \cdot 7 = 14\sqrt{k}$

4) $\sqrt{512a^4}$

$2 \cdot 2 \cdot 2 \cdot 2 \cdot \sqrt{2}$

$a \cdot a \quad a \cdot a$

$16\,a^2\sqrt{2}$

5) $\sqrt{180p^2qr}$

$p \cdot p$

$2 \cdot 3 \cdot p\sqrt{5qr}$

$6p\sqrt{5qr}$

6) $\sqrt{343xy^3z^2}$

x

$7yz\sqrt{7xy}$

7) Rob's school is selling tickets to a spring musical. On the first day of ticket sales the school sold 9 senior citizen tickets and 10 student tickets for a total of \$129. The school took in \$118 on the second day by selling 8 senior citizen tickets and 10 student tickets. What is the price each of one senior citizen ticket and one student ticket?

$$\begin{array}{r} 9c + 10s = 129 \\ -\,8c + 10s = 118 \\ \hline c = 11 \end{array}$$

	Day 1	Day 2
Senior citizen	9	8
Student	10	10
Total	129	118

$9(11) + 10s = 129$

$99 + 10s = 129$

$-99 \qquad -99$

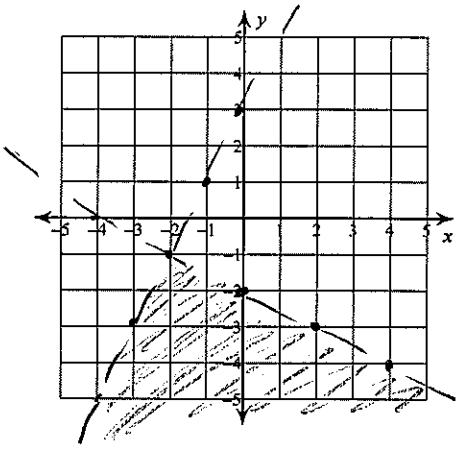
$\frac{10s}{10} = \frac{30}{10}$

$s = 3$

Sketch the solution to each system of inequalities.

8) $y < -\frac{1}{2}x - 2$ ①

$y < 2x + 3$ ②



① $m = -\frac{1}{2}$

$b = -2$

dashed

below

② $m = 2$

$b = 3$

dashed

below

Answers to Homework 29.3

1) $4\sqrt{2}$
2) $-72\sqrt{2}$
3) $14\sqrt{k}$
4) $16a^2\sqrt{2}$
5) $6p\sqrt{5qr}$
6) $7yz\sqrt{7xy}$
7) senior citizen ticket: \$11, student ticket: \$3
8)