## Homework 29.1

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## Simplify.

1) $\sqrt{196}$
2) $3 \sqrt{12}$
3) $\sqrt{20 x^{4}}$
4) $\sqrt{18 n}$
5) $\sqrt{24 h j^{4} k}$
6) $\sqrt{8 x^{2} y^{3} z^{3}}$
7) The school that Natalie goes to is selling tickets to a play. On the first day of ticket sales the school sold 6 adult tickets and 6 child tickets for a total of $\$ 138$. The school took in $\$ 168$ on the second day by selling 6 adult tickets and 9 child tickets. Find the price of an adult ticket and the price of a child ticket.

## Sketch the solution to each system of inequalities.

8) $y \leq-\frac{2}{3} x+1$

$$
y \leq-2 x-3
$$



## Answers to Homework 29.1

1) 14
2) $6 \sqrt{3}$
3) $2 x^{2} \sqrt{5}$
4) $3 \sqrt{2 n}$
5) $2 j^{2} \sqrt{6 h k}$
6) $2 x y z \sqrt{2 y z}$
7) adult ticket: $\$ 13$, child ticket: $\$ 10$
8) 



