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## Skills Maintenance

Finding Square Roots

## Activity 1

Solve the square roots. Use your calculator to find the numbers that are not perfect squares. Round your answers to the nearest tenth. Remember to include the negative numbers.

1. $\sqrt{89}$ $\qquad$ and $\qquad$
2. $\sqrt{95}$ $\qquad$ and $\qquad$
3. $\sqrt{100}$ $\qquad$ and $\qquad$
4. $\sqrt{112}$ $\qquad$ and $\qquad$
5. $\sqrt{121}$ $\qquad$ and $\qquad$
6. $\sqrt{136}$ $\qquad$ and $\qquad$
7. $\sqrt{141}$ $\qquad$ and $\qquad$
8. $\sqrt{144}$ $\qquad$ and $\qquad$
$\qquad$ Date $\qquad$

Problem-Solving Activity
The Direction of Non-Linear Functions
Create an $x / y$ table for each of the functions. Remember to use the rules
from PEMDAS. Solve the exponent before you multiply by the coefficient.

1. $y=\frac{1}{2} x^{2}$

| $x$ | $y$ |
| :---: | :---: |
| -2 |  |
| -1 |  |
| 0 |  |
| 1 |  |
| 2 |  |

2. $y=-x^{2}$

| $x$ | $y$ |
| :---: | :---: |
| -2 |  |
| -1 |  |
| 0 |  |
| 1 |  |
| 2 |  |

3. $y=-2 x^{2}$

| $x$ | $y$ |
| :---: | :---: |
| -2 |  |
| -1 |  |
| 0 |  |
| 1 |  |
| 2 |  |

4. $y=-2 x^{2}+1$

| $x$ | $y$ |
| :---: | :---: |
| -2 |  |
| -1 |  |
| 0 |  |
| 1 |  |
| 2 |  |

## Lesson 6

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## Problem-Solving Activity

## The Direction of Non-Linear Functions

Createreate a table and graph for the functions $y=x^{2}$ and $y=-x^{2}$. After you create them, answer the questions about the two functions.
$y=x^{2}$

| $x$ | $y$ |
| :---: | :---: |
| -3 |  |
| -2 |  |
| -1 |  |
| 0 |  |
| 1 |  |
| 2 |  |
| 3 |  |


$y=-x^{2}$

| $x$ | $y$ |
| :---: | :---: |
| -3 |  |
| -2 |  |
| -1 |  |
| 0 |  |
| 1 |  |
| 2 |  |
| 3 |  |



Name $\qquad$ Date $\qquad$

1. How do the tables differ for the two functions? Give examples.
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$\qquad$
$\qquad$
$\qquad$
2. How do the graphs differ for the two functions? Give examples.
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$\qquad$
$\qquad$
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3. Explain how the coefficient affects the tables and graphs of the functions.
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## mBook Reinforce Understanding

Use the mBook Study Guide to review lesson concepts.

