Perfect Square List

| 12 = | 22 = | 32 = | 42 = | 5 ² = | 6 ² = | 7 ² = | 8 ² = | 92 = | 10 ² = |
|---------------------|-------|-------------------|-------|-------------------|-------------------|-------------------|-------------------|-------------------|---------------------|
| 11 ² = _ | 122 = | 13 ² = | 142 = | 15 ² = | 16 ² = | 17 ² = | 18 ² = | 19 ² = | 20 ² = _ |

Warm up: Evaluate each radical expression.

| 1. $\sqrt{400}$ | 2. √ 196 | 3. $5\sqrt{81}$ | 4. $\frac{3}{4}\sqrt{64}$ |
|-----------------|---------------------|-----------------|---------------------------|
| | | | |
| | | | |

Simplify each square root completely.

| Method #1 "Perfect and Garbage" | Answers | Method #2 "Factor Tree/Jail house" | Answers |
|---------------------------------|---------|------------------------------------|---------|
| Notes: Work Space | 1 | Notes: Work Space | 1 |
| 1. $\sqrt{162}$ | | 1. $\sqrt{180}$ | |
| | 2 | | 2 |
| | | | |
| | | | |
| 2. $6\sqrt{32}$ | | 2. $-2\sqrt{147}$ | |
| 2. 0\32 | | 22 \(147 \) | |
| | | | |
| | | | |
| | | | |

Simplify each square root completely.

| Method #1 "Perfect and Garbage" | Answers | Method #2 "Factor Tree/Jail house" | Answers |
|---------------------------------|---------|------------------------------------|---------|
| 1. $\sqrt{125}$ | 1 | 1. √ 80 | 1 |
| | 2 | | 2 |
| 2. √45 | | 2. √ 200 | |
| | | | |
| | | | |

| Method #1 "Perfect and Garbage" | Answers | Method #2 "Factor Tree/Jail house" | Answers |
|---------------------------------|---------|------------------------------------|------------|
| 1. √ 96 | 1 | 1. $\sqrt{189}$ | 1 |
| | 2 | | 2 |
| 2. √ 120 | 3 | 2. √192 | - 3 |
| v | 4 | | 4 |
| | | | |
| 3. √ <u>216</u> | | 3. √ 72 | |
| | | | |
| | | | |
| 4. √338 | | 4. √320 | |
| | | | |
| | | | |
| | | | |

| Method #1 "Perfect and Garbage" | Answers | Method #2 "Factor Tree/Jail house" | Answers |
|---------------------------------|---------|------------------------------------|---------|
| 7√8 | 1 | 1. $\frac{1}{3}\sqrt{27}$ | 1 |
| | 2 | | 2 |
| 2. $-4\sqrt{125}$ | | 2. 4√1 5 3 | - |
| | | | |
| | | | |