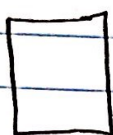


Math 3 NOTES

nwrk
blems
view

3.  $(25a^2 + 60a + 36) \text{ cm}^2$
 $\begin{matrix} \hat{5a} & \hat{5a} \\ (5a + 6)(5a + 6) \end{matrix}$

4. length of one side of a square $(x-24) \text{ cm}$

get answer by doubling.
 * Anything larger than 24.

10. NOT a function if it doesn't pass the vertical line test

SWBAT

* Simplify radicals and perform operations using radicals

1 $\sqrt{36} = \boxed{6}$

2 $\sqrt{72} = \boxed{6\sqrt{2}}$

3 $\sqrt{448} = \boxed{8\sqrt{7}}$

$\begin{matrix} \hat{64} & \hat{7} \\ \hat{8} & \hat{8} \end{matrix}$

$\begin{matrix} \hat{448} \\ \hat{16} & \hat{28} \\ \hat{4} & \hat{4} \\ 4\sqrt{28} \\ \hat{4} & \hat{7} \\ 4 \cdot 2\sqrt{7} \\ \boxed{8\sqrt{7}} \end{matrix}$

② $6\sqrt{11} (2 - \sqrt{11})$

$12\sqrt{11} - 6\sqrt{121}$
 $\boxed{12\sqrt{11} - 66} *$

③ $\sqrt{5} (7\sqrt{5} + 3)$

$7\sqrt{25} + 3\sqrt{5}$
 $7 \cdot 5$
 $\boxed{35 + 3\sqrt{5}} *$

3) $(1 - 7\sqrt{2})(1 - \sqrt{2})$
 $1 - \sqrt{2} - 7\sqrt{2} - 14$
 $\boxed{-8\sqrt{2} - 14} *$

use radicals in operations

1) $\sqrt{3} (4 + 5\sqrt{3})$
 $4\sqrt{3} + 5\sqrt{9}$
 $4\sqrt{3} + 5 \cdot 3$
 $\boxed{4\sqrt{3} + 15} *$

1) $\sqrt{250}$
 $\begin{matrix} \hat{25} & \hat{10} \\ \hat{5} & \hat{5} \end{matrix}$
 $\boxed{5\sqrt{10}} *$

2) $\sqrt{3} (4\sqrt{3} + 7)$
 $4\sqrt{9} + 7\sqrt{3}$
 $4 \cdot 3 + 7\sqrt{3}$
 $\boxed{12 + 7\sqrt{3}} *$

4 $\sqrt{810}$

$\begin{matrix} \hat{90} & \hat{9} \\ \hat{9} & \hat{10} & \hat{3} & \hat{3} \end{matrix}$

$\begin{matrix} \hat{3} & \hat{3} & \hat{10} \\ \hat{3} & \hat{3} & \hat{10} \end{matrix}$

$\begin{matrix} \hat{3} & \hat{3} & \hat{10} \\ \hat{3} & \hat{3} & \hat{10} \end{matrix}$

$\sqrt{810} = \boxed{9\sqrt{10}}$

$$3 \quad (1 - 7\sqrt{2})(1 - \sqrt{2})$$

First
Outside
Inside

$$1 - 11\sqrt{2} + 7\sqrt{4}$$

Last

$$1 - 8\sqrt{2} + (7 \cdot 2)$$

$$1 - 8\sqrt{2} + 14$$

$$\boxed{15 - 8\sqrt{2}} \star$$

$$4 \quad (3 + 2\sqrt{13})(3 - 2\sqrt{13})$$

$$9 - 6\sqrt{13} + 6\sqrt{13} - 4\sqrt{169}$$

$$9 - 4(13)$$

$$9 - 52$$

$$\boxed{-43} \star$$

$$5 \quad (4 + 3\sqrt{5})(4 - 3\sqrt{5})$$

$$16 - 12\sqrt{5} + 12\sqrt{5} - 9 \cdot 5$$

$$16 - 45$$

$$\frac{-16}{29} \quad \boxed{-29} \star$$

$$6 \quad (1 - 3\sqrt{6})(5 - 2\sqrt{6})$$

$$5 - 2\sqrt{6} - 15\sqrt{6} + 6\sqrt{36}$$

$$\boxed{41 - 14\sqrt{6}} \star$$

Reflection

1 You can use the FOIL method to simplify a radical.

2 FOIL

First Outside Inside Last