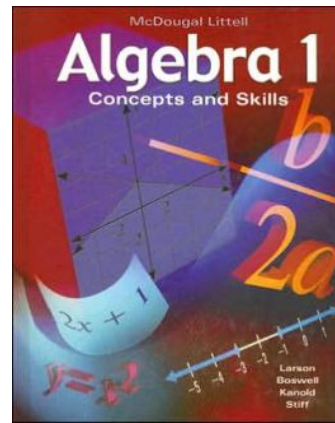


WELCOME BACK TO SCHOOL!

Ms. Engbrecht

Algebra Concepts



About Me



Oldest of 4

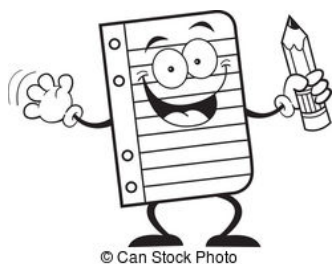
Textbooks



***COVER YOUR BOOK**

- Bring In PAPER BAG if you need help

Hall Passes

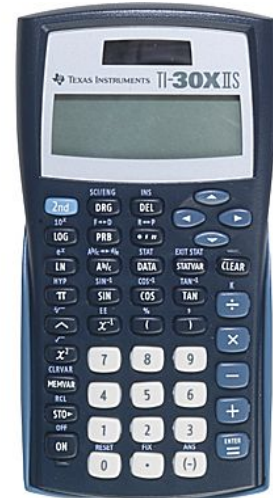
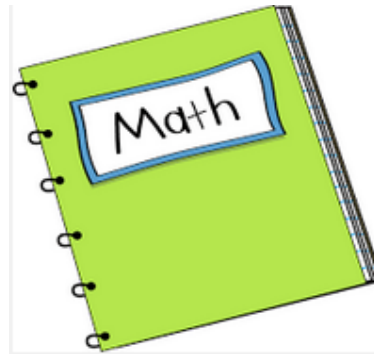
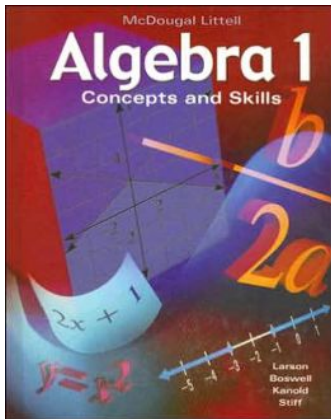


***Use your Planner**

Don't ***Abuse Them***, and you won't ***Lose Them***

***Use during Work Time**

EVERYDAY you should **BRING...**



BE HERE

WORK HARD

BE NICE



NO PHONES

***Leave** them in your **LOCKER**
OR



*Put them in **Cell Phone Holder**

-Phone in holder at **Beginning of Hour**

-I will let you know when you can take them
back at the **END OF THE HOUR**

If I see it ANYWHERE else, I will TAKE IT

THIS IS YOUR WARNING

RESPECT

- Yourself
- Others
- Property



Class Rules

- No food or beverage (except water)
- No electronics except your calculator
(No Phone, iPod, iPad, etc.)
- Be on time (In your seat when bell rings)
- End of the hour... Stay seated until the bell
- Have a good attitude
- Follow the rules set forth by the school

Sharpen Pencils...

ONE Person up at a time



*Before Class Starts

*During Work Time

**Bring at least 2 pencils*

*If you insist on pen, must be **black** or you will lose points on HW



Homework

- Expect it daily
- Typically due at the Beginning of next class

***If you FINISH EARLY...**



- *Bring other work to do Quietly
- *Read a book
- *Mazes, puzzles, etc.
- ***NO PHONES**

GRADES

50% tests

30% quizzes

20% assignments



Testing Procedure

- Review Day
- Test Day
- Outside of class Retake if you have all assignments done



ASK FOR HELP WHEN NEEDED

*Directed Study

*Before School (most days)

*After School

Let me know when you are coming,
so I can make sure to be there



Any Questions?



Ch.9 Notes

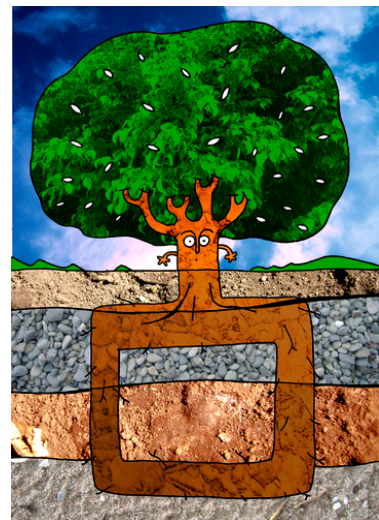
*Get a **BINDER** or **FOLDER**
for **This Class**

*If you need one, talk to me after class

9.1 Square Roots

Goals: • Evaluate and approximate square roots.

EQ: What are the first
11 perfect squares?



Vocabulary

Square root:

$$5^2 = 25$$

$$(-5)^2 = 25$$

$$\text{If } B^2 = 25$$

B is a square root

* All pos. #'s
have 2
square roots
±

Positive square root:

principal square root

$$\pm \sqrt{64} = \pm 8$$

Negative square root:

$$-\sqrt{49} = (-7)$$

Radicand:

inside

$$\sqrt{2x+1}$$

← Radical sign

Radicand = $2x+1$

$$\sqrt{25} = 5$$

Perfect square:

Sq. root of perfect squares is an integer

$2^2 = 4$	$4^2 = 16$	$6^2 = 36$	$8^2 = 64$	$10^2 = 100$
$3^2 = 9$	$5^2 = 25$	$7^2 = 49$	$9^2 = 81$	$11^2 = 121$
				$12^2 = 144$

Radical expression:

involves sq. roots

ex: $\sqrt{3x+1}$

Example 1: Find Square Roots of Numbers

Evaluate the expression.

a) $-\sqrt{49} = -7$

b) $\sqrt{49} = 7$

c) $\sqrt{0} = 0$

d) $\pm\sqrt{81} = \pm 9$
9 -9

$$\boxed{2^{\text{nd}} \text{ } \boxed{x^2}} = \sqrt{\quad}$$

Try It Evaluate the expression.

1) $\pm\sqrt{1} = \pm 1$
 $\begin{array}{l} \swarrow \quad \searrow \\ +\sqrt{1} \quad -\sqrt{1} \\ 1 \text{ and } -1 \end{array}$

2) $\sqrt{121} = 11$

3) $-\sqrt{9} = -3$

4) $\sqrt{144} = 12$

Example 2: Evaluate a Radical Expression

Evaluate $\sqrt{b^2 - 4ac}$ when $a = -7$, $b = 8$, and $c = -1$.

$$\begin{aligned}\sqrt{b^2 - 4ac} &= \sqrt{8^2 - 4(-7)(-1)} \\ &= \sqrt{64 - 28} \\ &= \sqrt{36} \\ &= 6\end{aligned}$$

Try It Evaluate $\sqrt{b^2 - 4ac}$ for the given values.
Discriminate

5) $a = -8$, $b = 6$, $c = 2$

$$\begin{aligned}\sqrt{6^2 - 4(-8)(2)} \\ &= \sqrt{36 + 64} \\ &= \sqrt{100} \\ &= 10\end{aligned}$$

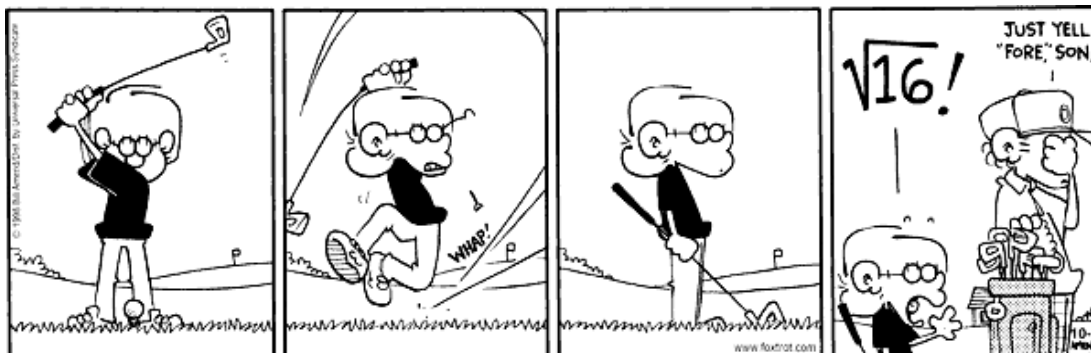
6) $a = 4$, $b = 9$, $c = 2$

$$\begin{aligned}\sqrt{9^2 - 4(4)(2)} \\ &= \sqrt{81 - 32} \\ &= \sqrt{49} \\ &= 7\end{aligned}$$

Summary

EQ: What are the first 11 perfect squares?

4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144



9.1 Homework

9.1 p.503 #26-64even, 65-68