

Begin Here

Hello! Welcome to **Physical Science II**. I've put together this assignment as an introduction to the course. Please fill it out. Some questions may be difficult, and others may be ridiculously easy, but please do not leave any answers blank.

Student Information

1. Name: _____

2. Is there anything in particular you would like to learn this year in Physical Science? If so, what is it?

3. I am always looking for ideas. What makes a class a good one? What makes someone a good teacher? Give me a suggestion or two to help me do a better job.

4. Likewise, what makes a class a bad one? What makes someone a bad teacher? Tell me what *not* to do.

Professional Conduct

Please read over the document “**KEYS TO A 100% PARTICIPATION GRADE**” on our website.

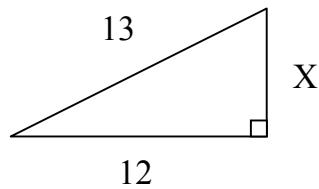
Science/Math Diagnostic Test

Please do not leave any of the answers blank. If you don't know an answer, write a question mark: “?” This will help me to “fit” the course to the class. Please ask me if you have any questions.

NO CALCULATORS, PLEASE

1. What is 574 divided by 100?
2. You drive at 50 mph for 3 hours. How far do you go?
3. You drive 50 miles and use 2 gallons of gas. How many miles per gallon is this? _____
4. A^3 means: a) $A+A+A$ b) $A \cdot A \cdot A$ c) $3A$ d) $\frac{3}{A}$
5. 8.5×10^2 means a) .85 b) 8.5 c) 85 d) 850 e) 8500
6. If $AB = CD$ and $A = 6$, $B = 3$, $C = 9$, then $D =$ _____
7. If $5t^2 = 45$, then $t =$ _____
8. If $20 = (\frac{1}{2})(10)t^2$, then $t =$ _____
9. $d = (\frac{1}{2})at^2$
If $d = 180$ and $a = 10$, then $t =$ _____

10.



$X =$ _____

11. Match each “unit” with the quantity it describes.

<u>Unit</u>	<u>Quantity</u>
foot _____	A. money
°F _____	B. distance
second _____	C. mass
hour _____	D. speed
meter _____	E. temperature
mph _____	F. time
\$ _____	
°C _____	
gram _____	

12. The number “ π ” = _____

13. 1 meter is about as long as
a) your fingernail b) your finger c) your arm d) a football field

14. You drop a rock off a bridge. As it falls, it
a) slows down b) speeds up c) neither – it stays at a steady speed

15. A woman jumps from an airplane. What **force** is pulling her down?
a) gravity b) electricity c) air resistance d) magnetism

16. She pulls her ripcord to open a parachute. What **force** slows her down?
a) gravity b) electricity c) air resistance d) magnetism

17. A driver hits the brakes and his car skids to a stop. What **force** made it stop?
a) gravity b) inertia c) acceleration d) friction

18. A rocket moving through empty space runs out of fuel. It will
a) keep moving straight ahead b) slow to a stop
c) speed up d) spiral in a circle

19. Name as many simple machines as you can.

20. Give any of Newton's Three Laws of Motion.

23. List in order, from least **dense** to most dense: water rock a pillow wood

24. Which is faster, sound or light?

25. Name the colors of the rainbow in order, starting with red:

26. How far is it from the Sun to the Earth (*this was a million dollar question on "Who Wants to be a Millionaire?"*)

27. Is there gravity on the moon?