

Course Activation Assignment

Welcome to EBUS Academy Distributed Learning. Enclosed you will find everything needed to complete your course activation assignment. Once you have completed this assignment you can email it to activation@ebus.sd91.bc.ca, fax it to 1-250-567-3943, or mail it to:

EBUS Academy
Bag 8000, 187 East Victoria St.
Vanderhoof, BC Canada V0J 3A2

Phone: 1-800-567-1236



To be considered active in this course you must:

- ▶ Complete a current enrollment form (see www.ebus.ca - please allow 3 days for processing)
- ▶ Fill out the information below
- ▶ Complete the following activation assignment for this course

Contact information

Name: _____ Personal Email: _____

Phone: _____ High School: _____

Regular progress reports are mailed/emailed out. Please provide email addresses that you would like these reports to go to (e.g. parent, school counselor, etc.). Parent email addresses are mandatory.

Parent Email (Name/Email): _____

Counselor/Supervisor (Name/Email): _____

Name/Position/Email: _____

You hope to finish this course in: Semester (5 months) 10 months

Once these requirements are met, please visit your 'My Classes' icon in FirstClass to continue.

If you have not yet received your welcome email with FirstClass instructions, please call our Help Desk at 1-800-567-1236 ext. 2255. If you are a continuing student, please use your existing EBUS login.

Name: _____

Email: _____

PHYSICS 11

Activation Assignment



Please submit your work to activation@ebus.sd91.bc.ca or by fax to 1-250-567-3943.
Once your assignment has been received you will be contacted by a teacher.

Learning Goal: Physics 11 is an introductory course that looks at a variety of physical phenomena including how light and sound waves react, calculating velocity and acceleration, and how mass and force are related as a few examples. You are not expected to know how to perform these calculations, but you should have some basic math skills to be successful. This assignment will show how well you can:

- use scientific notation
- convert units (ex: grams to kilograms)
- draw diagrams to show solving ability (trigonometry)
- manipulate simple equations

Time: Approximately 2 - 3 hours

Score: /60 marks (5% of course mark)
Students are expected to score at least 60% to be activated in the course.

The following questions are a review of the math skills you have learned already. You are welcome to use the Internet to find sites to help you “refresh” your memory.

Total Score /60

SCIENTIFIC NOTATION: /9

Write the following in scientific notation:

a) 5 500 000 000

b) 0.091

c) 0.000 003 004

Write the following numbers in regular notation:

a) 5.5×10^{-7}

b) 7.1×10^{10}

c) 1.0×10^3

The velocity of light is 3.0×10^8 m/s. How long does it take light to travel from the Earth to the Moon (the distance is 3.84×10^8 m) (1 point for work, 1 point for answer, 1 point for correct unit)

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UNIT CONVERSIONS:

/9

Convert the following:

a) 5 kg = _____ g b) 59.2 minutes = _____ seconds

c) 120 m/s = _____ km/h d) 560 g = _____ kg

e) 87 s = _____ min f) 25 km/h = _____ m/s

How many minutes are in one year? **(1 point for work, 1 point for answer, 1 point for correct unit)**

TRIGONOMETRY

/15

Draw diagrams. Show your work. Round all of your answer to one decimal place. **(1 point for diagram, 1 point for work, 1 point for correct answer)**

a) The angle of elevation of the Rock Mountain fire-control tower from the top of Blue Mountain is 3.0 km (horizontal distance) is 18° . How much higher is the fire-control tower?

b) Billy's kite has a string 40 m long and is flying 27 m above his eye level. Find the angle of elevation of the kite.

c) At an airport, cars drive down a ramp 96 m long to reach the lower level baggage-claim area 13 m below the main level. What angle does the ramp make with the ground at the lower level?

d) How far from the vertical wall of a building is the base of a 10 m ladder, which makes a 75° angle with the ground?

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- e) The angle of depression of an aircraft carrier from an approaching airplane is 52.2° . If the plane is 700 m above the deck of the carrier, how far away is the carrier?

FORMULAS /27

(1 point for work, 1 point for answer, 1 point for correct unit)

Using $A = lw$

a) Find A if $l = 5$ m and $w = 200$ cm

b) Find w if $A = 212$ m² and $l = 16$ m

Using $g = a + w$

a) Find g if $a = 5$ kg and $w = 500$ g

b) Find a if $g = 210$ g and $w = 120$ g

Using $v = u + at$

a) Find v if $u = 0$, $a = 15$ m/s² and $t = 5$ s

b) Find u if $v = 125$ m/s, $a = 10$ m/s² and $t = 10$ s

Using $A = \frac{1}{2}bh$

a) Find A if $b = 10$ cm and $h = 0.5$ m

b) Find b if $A = 180$ cm² and $h = 30$ cm

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Find the formula to determine the circumference of a circle. If a circle has a circumference of 2430 cm, what is the diameter? (Bonus – what is its radius?)

You have reached the end of your Activation Assignment. Ensure that all is complete and submit to activation@ebus.sd91.bc.ca or by fax to 1-250-567-3943. Once your assignment has been received you will be contacted by a teacher.

Thank you and welcome to Physics 11!