

# [EXAM | REVIEW]

**DISCLAIMER:** THIS IS NOT A "PRACTICE TEST" - IT IS ONLY TO HELP YOU GET IDEAS FOR YOUR OWN REVIEW AT HOME.

[1.] SIMPLIFY  $(-4a^2b + 9ab - 11ab^2) - (14a^2b - 2ab + 7ab^2)$

[2.] LET  $f(x) = 6x^2 - x + 25$

(a.) FIND  $f(3)$

(b.) FIND  $f(a+1)$

[3.] LET  $p(x) = -x^2 + 3x - 2$  &  $h(x) = 5x - 1$ .

(a.) FIND  $(p+h)(x)$

(b.) FIND  $(ph)(x)$

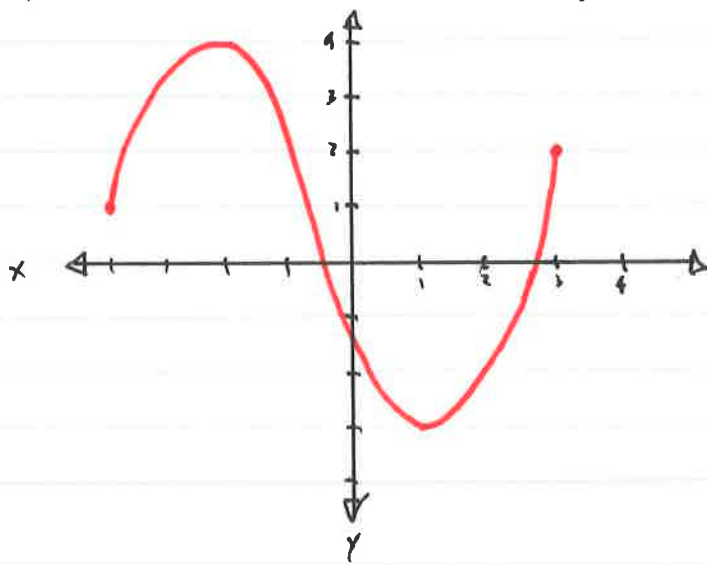
(c.) FIND  $(ph)(0)$

[4.] SIMPLIFY  $(4ab + 9)^2$

[5.] SIMPLIFY  $(x+7)(x-7)$

[6.] EXPAND  $(3x^2 + 2x - 1)(2x^2 - 4x + 6)$

[7.] FIND DOMAIN & RANGE OF FUNCTION BELOW.



[8.] SIMPLIFY THE POWER EXPRESSIONS

(a)  $(9a^2b)^2(3ab^3)^3$

(e)  $\left(\frac{32b^2c^5}{2b^{-6}c}\right)^{1/4}$

(b)  $\frac{(2x^9y^2)^3}{16x^{12}y^{11}}$

(f)  $\frac{(20b^{-2}c^{-9})(27b^5c^3)}{(18b^3c^{-1})(30b^{-1}c^{-4})}$

(c)  $3(8b^{-6}c^{12})^{2/3}$

(g)  $\frac{(16b^8c^{-4})^{1/4}}{(25b^{-6}c^4)^{3/2}}$

(d)  $[(2b^3)^7(2b^6c^{18})]^{1/6}$

[9.] WRITE THE FOLLOWING IN SCIENTIFIC NOTATION

(a) -3,700,000,000

(c) -0.00001031

(b) 0.00000000108

[10.] WRITE THE FOLLOWING IN STANDARD DECIMAL NOTATION

(a)  $-9.79 \times 10^5$

(c)  $1.11 \times 10^{15}$

(b)  $1.06 \times 10^{-11}$

[11.] GRAPH  $m(x) = 3\left(\frac{1}{2}\right)^x$

[12.] GIVEN THE FOLLOWING TABLE, WRITE AN EXPONENTIAL FUNCTION  $f(x) = ab^x$  THAT MODELS THE DATA.

x	f(x)
-1	7/2
0	7
1	14
2	28
3	56