

Write as powers in simplest form:  
(4 pts. each)

1)  $2^2 \cdot 2^3 =$

2)  $(2^5)^2 =$

3)  $\frac{5^7 \cdot 5^2}{5^4 \div 5} =$

4)  $r^2 \cdot r^3 \cdot r^4 =$

5)  $t^{12} \div t^7 =$

6)  $(a^5 b^2)(a^{11} b^7) =$

7)  $(-x^6)^5 =$

8)  $(-x^5)^6 =$

9)  $\frac{(-6x^2 y^3)}{(3x^3 y^2)} =$

10)  $(5a^2 b)^2 (abc)^3 =$

Write the following expressions in simplest form:  
(5 pts. each)

11)  $x(y - x + 3) =$

12)  $2x(x - 5) =$

13)  $x^2y(x + y - xy) =$

14)  $(x + 2)(x + 3) =$

15)  $(b - 4)(b + 2) =$

16)  $(2x - 1)(3x + 2) =$

17)  $(x - 3y)^2 =$

18)  $\frac{12x^2y^3}{3xy} =$

19)  $\frac{72r^2s^3t^4}{30rs^3t^5} =$

- 20) On a sketch showing both axes...(for 15 points total)...PLOT and LABEL the following sets of rectangular coordinates.

$$\underline{6.0000}, \quad \underline{-5.0000}, \quad \underline{\sqrt{9.0000}}, \quad \underline{(-1.0000)^2}, \quad \underline{-1.0000}, \quad \underline{0.0000}$$
$$\underline{7.0000}, \quad \underline{-3.0000}, \quad \underline{4.5000}, \quad \underline{-1.0000/2.0000}, \quad \underline{4.0000}, \quad \underline{\sqrt{2.0000}}$$

...and finally, plot and label points using successive numbers on each of the axes as ordered pairs. [ e.g.:  $(6.0000, 7.0000)$ ,  $(-5.0000, -3.0000)$ , etc ... ]

