**Algebra 2 CP Worksheet Section 9.1 Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**SHOW ALL WORK AND ANSWERS ON SEPARATE PAPER.**

**For #’s 1 – 2, varies directly as . Write the appropriate direct variation equation. Then find for the given values of .**

1. when ; find with -values: 3, 4, 5
2. when ; find with -values: 3, 4, 5

**For #’s 3 – 4, varies inversely as . Write the appropriate inverse variation equation. Then find for the given values of .**

1. when ; find with -values: 3, 4, 5
2. when ; find with -values: 3, 4, 5

**For #’s 5 – 7, varies jointly as and . Write the appropriate joint variation equation. Then find the missing variable using the given information.**

1. when and ; find when &
2. when and ; find when &
3. when and ; find when &

**For #’s 8 – 10, varies jointly as and and inversely as . Write the appropriate combined variation equation. Then find for the given values of , , and .**

1. when , , and ; find when , , &
2. when , , and ; find when , , &
3. when , , and ; find when , , &

**For #’s 11 – 12, write a general equation for each problem. Find the constant of variation. Then solve.**

1. The variable varies directly as the square root of and inversely as . If when and , then find when and .
2. The variable varies jointly as cubed and the square root of , and inversely as . If , then , , & . Find when , , and .