Name : _____

Joint and Combined Variation

Round your answer to two decimal places.

1) Seacausus stadium has a seating capacity for 25,000 spectators. The stadium has 25 exits and can be vacated in 20 minutes. The time taken to exit the stadium varies directly with the number of spectators and inversely with the number of exits. Determine the time taken for 21,000 spectators to vacate the stadium, if only 15 exits are functional.

_____

2) A pennant flag that is 2 inches high with a base of 1.5 inches has an area of 1.5 square inches. The area of a triangle var_____ a flag whose base measures 2 inches a_____

_____

3) An empty can of roc_____gas at a pressure of 360 kPa at 24° C. Pressure va_____ume. Determine the temperature of the _____

_____

4) A train from Newark _____r hour and covers a distance of 270 mile_____ the distance covered and inversely with the ti_____els a distance of 248 miles in 6.2 hours.

_____

5) Ralph invested $18,500 in the share market for a period of 2 years and earned an interest of $1,850 at the rate of 5%. The simple interest varies jointly with the principal, rate of interest, and the period of investment. Find the amount invested, if a person received an interest of $3,960 for 3 years at the rate of 6%.

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