**VECTORS** Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Partners:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   Course:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| Addition | Resultant Vector | Force Table Check |
|  | From website:<http://www.1728.org/vectors.htm> | Analytical method |  |
| 50 g @ 200150 g @ 1500200 g @ 2500 | *FR=**θR=*  | *FR=**θR=**θE=* | \_\_\_\_\_\_\_\_ |



|  |  |  |
| --- | --- | --- |
| Addition | Resultant Vector | Force Table Check |
|  | From website | Analytical method |  |
| 50 g @ 00and100 g @ 900 | *FR=**θR=*  | *FR=**θR=**θE=* | \_\_\_\_\_\_\_\_ |
| 50 g @ 200and250 g @ 1200 | *FR=**θR=*  | *FR=**θR=**θE=* | \_\_\_\_\_\_\_\_ |
| 50 g @ 200250 g @ 1200300 g @ 3000 | *FR=**θR=* | *FR=**θR=**θE=* | \_\_\_\_\_\_\_\_ |
| 100 g @ 300150 g @ 1400125 g @ 2000200 g @ 3000 | *FR=* *θR=* | *FR=**θR=**θE=*  | \_\_\_\_\_\_\_\_\_ |
| Resolution | *XXXXXXXXXXXX* | *XXXXXXXXXXX* | XXXXXXXXXXXX  |
| 300 g @ 300 | *XXXXXXXXXXXX* | *Fx=**Fy=* | \_\_\_\_\_\_\_\_\_ |

Exercise

1. Use the definition of scalar product, , and the fact that  to calculate the angle between the two vectors given by:
 **A** = 2 i - 5 j + 5 k and **B** = 5 i + 2 j - 4 k.

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2. Here are three vectors in meters: (P63-HRW9)

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| http://edugen.wiley.com/edugen/courses/crs4957/common/art/pixel.gif |
| http://edugen.wiley.com/edugen/courses/crs4957/halliday9118/halliday9118c03/math/math145.gif |  |
| http://edugen.wiley.com/edugen/courses/crs4957/common/art/pixel.gif |

What results from (a) http://edugen.wiley.com/edugen/courses/crs4957/halliday9118/halliday9118c03/math/math146.gif, (b) http://edugen.wiley.com/edugen/courses/crs4957/halliday9118/halliday9118c03/math/math147.gif, and (c) http://edugen.wiley.com/edugen/courses/crs4957/halliday9118/halliday9118c03/math/math148.gif including unit? |