

PHYS221 Vectors to add

Set A - (Use if you sit at tables 1, 4, 7 & 10 – right column of tables)

Two Forces

$$\vec{F}_1 = (4.0000 \pm 0.0002) \text{ N @ } (135.00 \pm 0.04) \text{ degrees}$$

$$\vec{F}_2 = (6.0000 \pm 0.0002) \text{ N @ } 250.00 \pm 0.04 \text{ degrees}$$

Uncertainty of this resultant is 0.0003N and 0.2 degrees

Three Forces

$$\vec{F}_1 = (4.0000 \pm 0.0002) \text{ N @ } (290.00 \pm 0.04) \text{ degrees}$$

$$\vec{F}_2 = (3.0000 \pm 0.0002) \text{ N @ } 180.00 \pm 0.04 \text{ degrees}$$

$$\vec{F}_3 = (5.0000 \pm 0.0002) \text{ N @ } 120.00 \pm 0.04 \text{ degrees}$$

Uncertainty of this resultant is 0.0003N and 0.2 degrees

Set B - (Use if you sit at tables 2, 5, 8 & 11- middle column of tables)

Two Forces

$$\vec{F}_1 = (4.0000 \pm 0.0002) \text{ N @ } (315.00 \pm 0.04) \text{ degrees}$$

$$\vec{F}_2 = (6.0000 \pm 0.0002) \text{ N @ } (70.00 \pm 0.04) \text{ degrees}$$

Uncertainty of this resultant is 0.0003N and 0.2 degrees

Three Forces

$$\vec{F}_1 = (4.0000 \pm 0.0002) \text{ N @ } (290.00 \pm 0.04) \text{ degrees}$$

$$\vec{F}_2 = (3.0000 \pm 0.0002) \text{ N @ } 180.00 \pm 0.04 \text{ degrees}$$

$$\vec{F}_3 = (5.0000 \pm 0.0002) \text{ N @ } 120.00 \pm 0.04 \text{ degrees}$$

Uncertainty of this resultant is 0.0003N and 0.2 degrees

Set C - (Use if you sit at tables 3, 6, 9 & 12- left column of tables)

Two Forces

$$\vec{F}_1 = (5.0000 \pm 0.0002) \text{ N @ } (30.00 \pm 0.04) \text{ degrees}$$

$$\vec{F}_2 = (3.5000 \pm 0.0003) \text{ N @ } (70.00 \pm 0.04) \text{ degrees}$$

Uncertainty of this resultant is 0.0004N and 0.2 degrees

Three Forces

$$\vec{F}_1 = (4.0000 \pm 0.0002) \text{ N @ } (110.00 \pm 0.04) \text{ degrees}$$

$$\vec{F}_2 = (3.0000 \pm 0.0002) \text{ N @ } 0.00 \pm 0.04 \text{ degrees}$$

$$\vec{F}_3 = (5.0000 \pm 0.0002) \text{ N @ } 300.00 \pm 0.04 \text{ degrees}$$

Uncertainty of this resultant is 0.0003N and 0.2 degrees