# Vectors · Grade 12

Name _____ Date _____ Score _____ / 4

**01**

Force $\vec{F} = \langle 6, 7 \rangle$ N, displacement $\vec{d} = \langle 0, -6 \rangle$ m. Find the work done $W = \vec{F} \cdot \vec{d}$ =

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**02**

Force $\vec{F} = \langle -6, -3 \rangle$ N, displacement $\vec{d} = \langle 4, 9 \rangle$ m. Find the work done $W = \vec{F} \cdot \vec{d}$ =

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**03** $\vec{a} = \langle 2, -7, 10 \rangle, \vec{b} = \langle -5, -3, 6 \rangle$. Find the parallelogram area $|\vec{a} \times \vec{b}| \approx$ _____

**04** Find $\vec{AB}$ given A(-8, -7) and B(-6, 5) = _____

# Vectors · Grade 12 (Answer Key)

**01**

Force $\vec{F} = \langle 6, 7 \rangle$ N, displacement $\vec{d} = \langle 0, -6 \rangle$ m. Find the work done $W = \vec{F} \cdot \vec{d}$ =

**-42 J**

**02**

Force $\vec{F} = \langle -6, -3 \rangle$ N, displacement $\vec{d} = \langle 4, 9 \rangle$ m. Find the work done $W = \vec{F} \cdot \vec{d}$ =

**-51 J**

**03** $\vec{a} = \langle 2, -7, 10 \rangle, \vec{b} = \langle -5, -3, 6 \rangle$. Find the parallelogram area $|\vec{a} \times \vec{b}| \approx$ **75.3**

**04** Find $\vec{AB}$ given A(-8, -7) and B(-6, 5) = $\langle 2, 12 \rangle$