

Name _____ Period _____ date _____

Progressive Worksheet for Vectors

A. Add these vectors

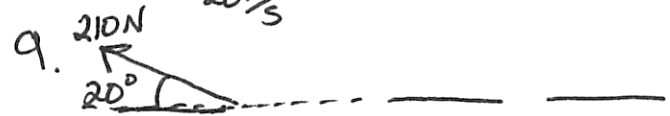
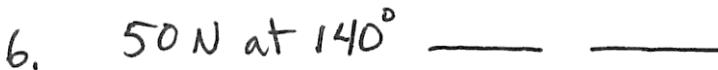
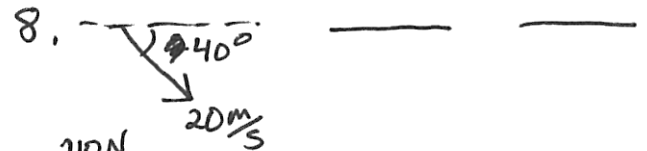
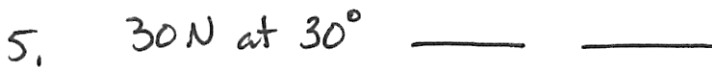
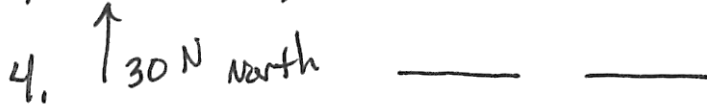
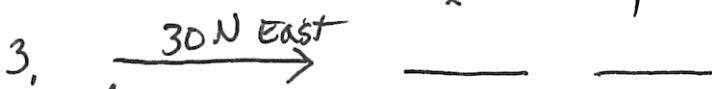
1. 10N East + 20N East _____

3. $15\frac{m}{s} E + 21\frac{m}{s} E + 40\frac{m}{s} W$ _____

2. 15N west + 12N East _____

4. 10N West + 14N West + 12N East _____

B. Find the components of these vectors (V_x, V_y) (F_x, F_y) etc.



C. Given these components, find the vector.

10. $\frac{20N}{x}$ $\frac{0N}{y}$ _____ @ _____

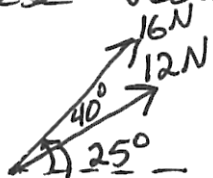
11. $\frac{20N}{x}$ $\frac{10N}{y}$ _____ @ _____

12. $\frac{35N}{x}$ $\frac{-20N}{y}$ _____ @ _____

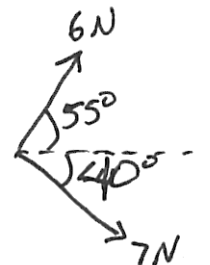
13. $\frac{-8N}{x}$ $\frac{12N}{y}$ _____ @ _____

D. Add these vectors

14.



15.



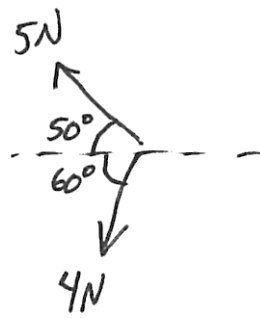
_____ @ _____

_____ @ _____

Add these vectors (cont)



17.

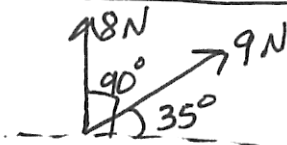


_____ @ _____

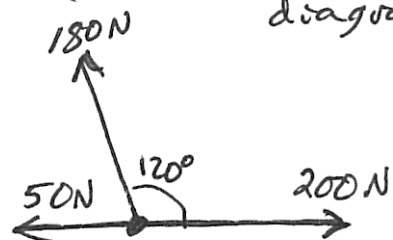
_____ @ _____

Find the equilibrant in each situation (also, draw it into the diagram)

18.



19.



20. Boat ~~travels~~ ^{heads East} at $4 \frac{m}{s}$ East, River flows $1.6 \frac{m}{s}$ South.
What is boat's velocity?

21. A street lamp weighs 150N and is supported ^{equally} by two wires that have an ~~angle~~ angle of ~~80~~ ⁸⁰ between them, what is tension on each wire

