## Vector Based Word Problems - Matching Worksheet

Match the word problems to their answers. Write the letter of the answer that matches the problem.

1. Ethan goes to the park. The park is 85 km away from his house towards south. After 2.00 minutes, Ethan is 195 km away from his house towards west. Find Ethan's average velocity.
2. Emily rides a bicycle from her home. She goes east at $40 \mathrm{~m} / \mathrm{s}$ and south at $88 \mathrm{~m} / \mathrm{s}$. What is the bicycle's relative velocity to her friend waiting at home?
3. Amelia is flying a kite 85 km away from the park kite area towards north. After 2 minutes, the kite is 165 km away from kite area towards east. Find the average velocity of the kite.
4. Harper goes to school. He goes 96 km from his home towards south. After 2.00 minutes, Harper is 144 km from his house towards west. Find Harper's average velocity.
5. Isaac drives a car from his office. He goes north at $75 \mathrm{~m} / \mathrm{s}$ and west at $95 \mathrm{~m} / \mathrm{s}$. What is the car's relative velocity to his boss waiting at Isaac's office?
6. Joshua drives a car from his home. He goes west at $190 \mathrm{~m} / \mathrm{s}$ and south at $180 \mathrm{~m} / \mathrm{s}$. What is his velocity relative to his home?
7. Aiden goes to his office. He goes 175 km from his home towards east. After 3.00 minutes, Aiden is 225 km away from the office towards south. Find Aiden's average velocity.
a. $\quad 96.66 \mathrm{~m} / \mathrm{s}$
b. $\quad 1.44 \mathrm{~km} / \mathrm{s}$
c. $\quad 261.73 \mathrm{~m} / \mathrm{s}$
d. $1.58 \mathrm{~km} / \mathrm{s}$
e. $\quad 121.03 \mathrm{~m} / \mathrm{s}$
f. $\quad 1.55 \mathrm{~km} / \mathrm{s}$
g. $1.77 \mathrm{~km} / \mathrm{s}$
