



Scalars & Vectors

SCORE

___ / 20

Chapter: Mechanics • Level ★★★ • Time: 30 min

Name _____ Class _____ Date _____

AFTER THIS WORKSHEET YOU CAN

- ✓ Understand: Scalar Quantity
- ✓ Understand: Vector Quantity
- ✓ Understand: Vector Notation
- ✓ Understand: Vector Addition



Section A • Concept Check

• BEGINNER

4 × 1 = 4

1 Is 'displacement' a scalar or vector?

2 Is 'distance' a scalar or vector?

3 Is 'energy' a scalar or vector?

4 Find the magnitude of the vector (5,12).



Section B • Problem Solving

• INTERMEDIATE

4 × 3 = 12

5 Add the vectors (4,-2) and (-1,5).

6 What is the key difference between distance and displacement?

7 Find the magnitude of the vector (0,9).

8 Is 'acceleration' a scalar or vector?



Section C • Challenge

• CHALLENGE

2 × 2 = 4

9 Subtract (5,6) - (2,1).

10 Why does direction matter when adding forces acting on an object?

Reflection — the most useful thing I learned: _____

✂ ANSWER KEY – FOLD OR CUT BEFORE HANDING OUT

1 = Vector 2 = Scalar 3 = Scalar 4 = 13 | 5 = (3,3) 6 = Distance is a scalar (total path length); displacement is a vector (straight-line change in position, with direction) 7 = 9 8 = Vector | 9 = (3,5) 10 = Forces in different directions can partially or fully cancel out, unlike scalars which simply add together