

Find each of the following for $f = \langle 8, 0 \rangle$, $g = \langle -3, -5 \rangle$, and $h = \langle -6, 2 \rangle$:

1) $4h - g$

2) $f + 2h$

3) $3g - 5f + h$

4) $2f + g - 3h$

5) $f - 2g - 2h$

6) $h - 4f + 5g$

7) $4g - 3f + h$

8) $6h + 5f - 10g$

Find each of the following for $p = \langle 4, 0 \rangle$, $q = \langle -2, -3 \rangle$, and $r = \langle -4, 2 \rangle$:

9) $2q - p$

10) $p + 2r$

11) $r - 3p + q$

12) $2p + r - 3q$

State whether each quantity described is a vector quantity or a scalar quantity:

13) A car driving 50 miles an hour due east

14) A gust of wind blowing 5 meters per second

15) A weight of 12.7 lbs on a scale