

1. The vectors should be parallel to achieve a resultant 7 m long (the unprimed case shown below), antiparallel (in opposite directions) to achieve a resultant 1 m long (primed case shown), and perpendicular to achieve a resultant $\sqrt{3^2 + 4^2} = 5$ m long (the double-primed case shown). In each sketch, the vectors are shown in a “head-to-tail” sketch but the resultant is not shown. The resultant would be a straight line drawn from beginning to end; the beginning is indicated by A (with or without primes, as the case may be) and the end is indicated by B .

