

Magnitudes of Scalar Multiples - Independent Practice Worksheet

Complete all the problems.

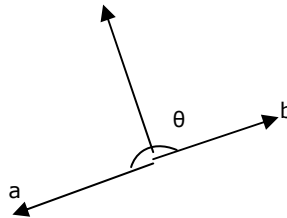
Lesson 1 Scalar Multiples Problem:

1) If $a = 2i + 3j$, $b = 2j + 6j$ and $c = i + j$, the angle between a and b is 160° and it is given that c bisects a and b then find the following to two decimal places:

(a) $a \cdot b$

(b) $a \cdot c$

(c) $b \cdot c$

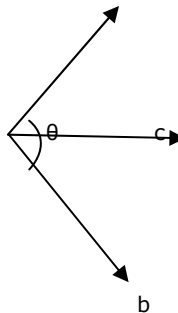


2) If $a = 7i + 2j$, $b = 4i + 3j$ and $c = i + j$, the angle between a and b is 100° , and it is given that c bisects a and b then find the following to two decimal places:

(a) $a \cdot b$

(b) $a \cdot c$

(c) $b \cdot c$

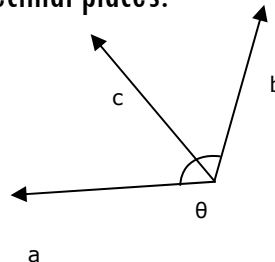


3) If $a = 3i + 5j$, $b = i + 6j$ and $c = i + j$, the angle between a and b is 110° , and it is given that c bisects a and b then find the following to two decimal places:

(a) $a \cdot b$

(b) $a \cdot c$

(c) $b \cdot c$



Name _____

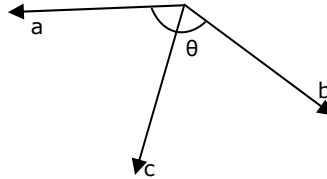
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4) If $a = 8i + 2j$, $b = 2i + 9j$ and $c = i + j$, the angle between a and b is 140° , and it is given that c bisects a and b then find the following to two decimal places:

(a) $a \cdot b$

(b) $a \cdot c$

(c) $b \cdot c$

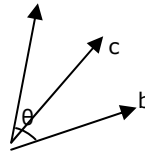


5) If $a = 4i + 3j$, $b = i + 8j$ and $c = i + j$, the angle between a and b is 60° , and it is given that c bisects a and b then find the following to two decimal places:

(a) $a \cdot b$

(b) $a \cdot c$

(c) $b \cdot c$

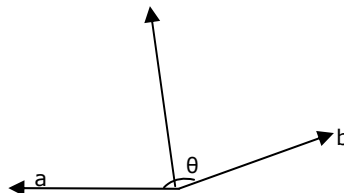


6) If $a = 2i + 5j$, $b = 2i + 10j$ and $c = i + j$, the angle between a and b is 160° , and it is given that c bisects a and b then find the following to two decimal places:

(a) $a \cdot b$

(b) $a \cdot c$

(c) $b \cdot c$

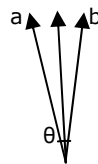


7) If $a = 9i + 3j$, $b = 7i + 15j$ and $c = i + j$, the angle between a and b is 40° , and it is given that c bisects a and b then find the following to two decimal places:

(a) $a \cdot b$

(b) $a \cdot c$

(c) $b \cdot c$



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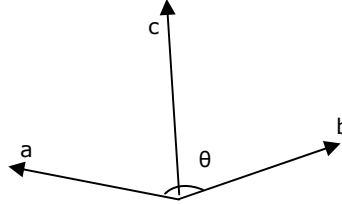
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8) If $a = 14i+4j$, $b = 3i+7j$ and $c = i+j$, the angle between a and b is 150° , and it is given that c bisects a and b then find the following to two decimal places:

(a) $a \cdot b$

(b) $a \cdot c$

(c) $b \cdot c$

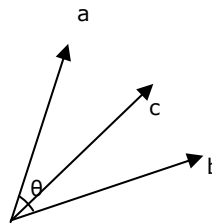


9) If $a = 8i+5j$, $b = 6i+10j$ and $c = i+j$, the angle between a and b is 50° , and it is given that c bisects a and b then find the following to two decimal places:

(a) $a \cdot b$

(b) $a \cdot c$

(c) $b \cdot c$



10) If $a = 6i+5j$, $b = 8i+15j$ and $c = i+j$, the angle between a and b is 130° , and it is given that c bisects a and b then find the following to two decimal places:

(a) $a \cdot b$

(b) $a \cdot c$

(c) $b \cdot c$

