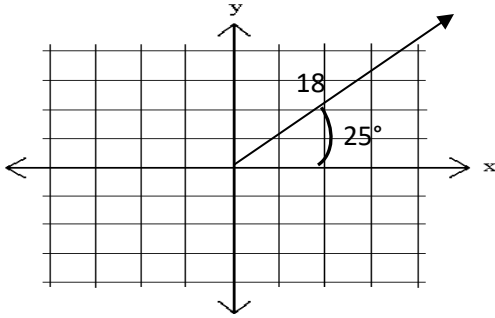
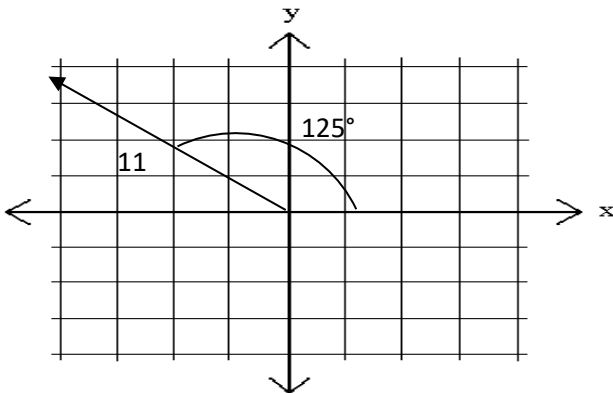


- Find the component form of the vector, \mathbf{v} .



- If $R = (-2, 5)$ & $S = (2, -8)$, find the component form of \overrightarrow{RS} .
- If $R = (-2, 5)$ & $S = (2, -8)$, find the magnitude of \overrightarrow{RS} .
- If $\mathbf{u} = \langle -1, 3 \rangle$ & $\mathbf{v} = \langle 2, 4 \rangle$, find $-2\mathbf{u} - 3\mathbf{v}$.
- Find the unit vector in the direction of $\mathbf{w} = -\mathbf{i} - 2\mathbf{j}$.
- Find the unit vector in the direction of $\mathbf{u} = \langle -4, -5 \rangle$.
- Find the magnitude of $\langle -1, 2 \rangle$.
- Find the Partial Fraction Decomposition for the expression: $\frac{3x^3 + 6x - 1}{(x^2 + 2)^2}$
- Find the direction angle of $\langle -1, 2 \rangle$.
- Find the component form of the vector, \mathbf{v} .



- If $R = (2, -3)$ & $S = (-5, 4)$, find the component form of \overrightarrow{RS} .
- If $R = (2, -3)$ & $S = (-5, 4)$, find the magnitude of \overrightarrow{RS} .
- If $\mathbf{u} = \langle 1, -2 \rangle$ & $\mathbf{v} = \langle -1, 3 \rangle$, find $3\mathbf{u} - 2\mathbf{v}$.
- Find the unit vector in the direction of $\mathbf{w} = 2\mathbf{i} - 3\mathbf{j}$.
- Find the unit vector in the direction of $\mathbf{u} = \langle 7, 24 \rangle$.
- Find the magnitude of $\langle 4, -9 \rangle$.
- Find the Partial Fraction Decomposition for the expression: $\frac{4x - 11}{2x^2 - x - 3}$
- Find the direction angle of $\langle 4, -9 \rangle$.

ANSWERS

1. $\langle 16.3, 7.6 \rangle$

2. $\langle 4, -13 \rangle$

3. $\sqrt{185}$

4. $\langle -4, -18 \rangle$

5. $-0.45\mathbf{i} - 0.89\mathbf{j}$

6. $\langle \frac{-4}{\sqrt{41}}, \frac{-5}{\sqrt{41}} \rangle$

7. $\sqrt{5}$

8. $\frac{3x}{x^2+2} + \frac{-1}{(x^2+2)^2}$

9. 117°

10. $\langle -6.3, 9.0 \rangle$

11. $\langle -7, 7 \rangle$

12. $7\sqrt{2}$

13. $\langle 5, -12 \rangle$

14. $0.55\mathbf{i} - 0.83\mathbf{j}$

15. $\langle \frac{7}{25}, \frac{24}{25} \rangle$

16. $\sqrt{97}$

17. $\frac{3}{x+1} - \frac{2}{2x-3}$

18. 294°