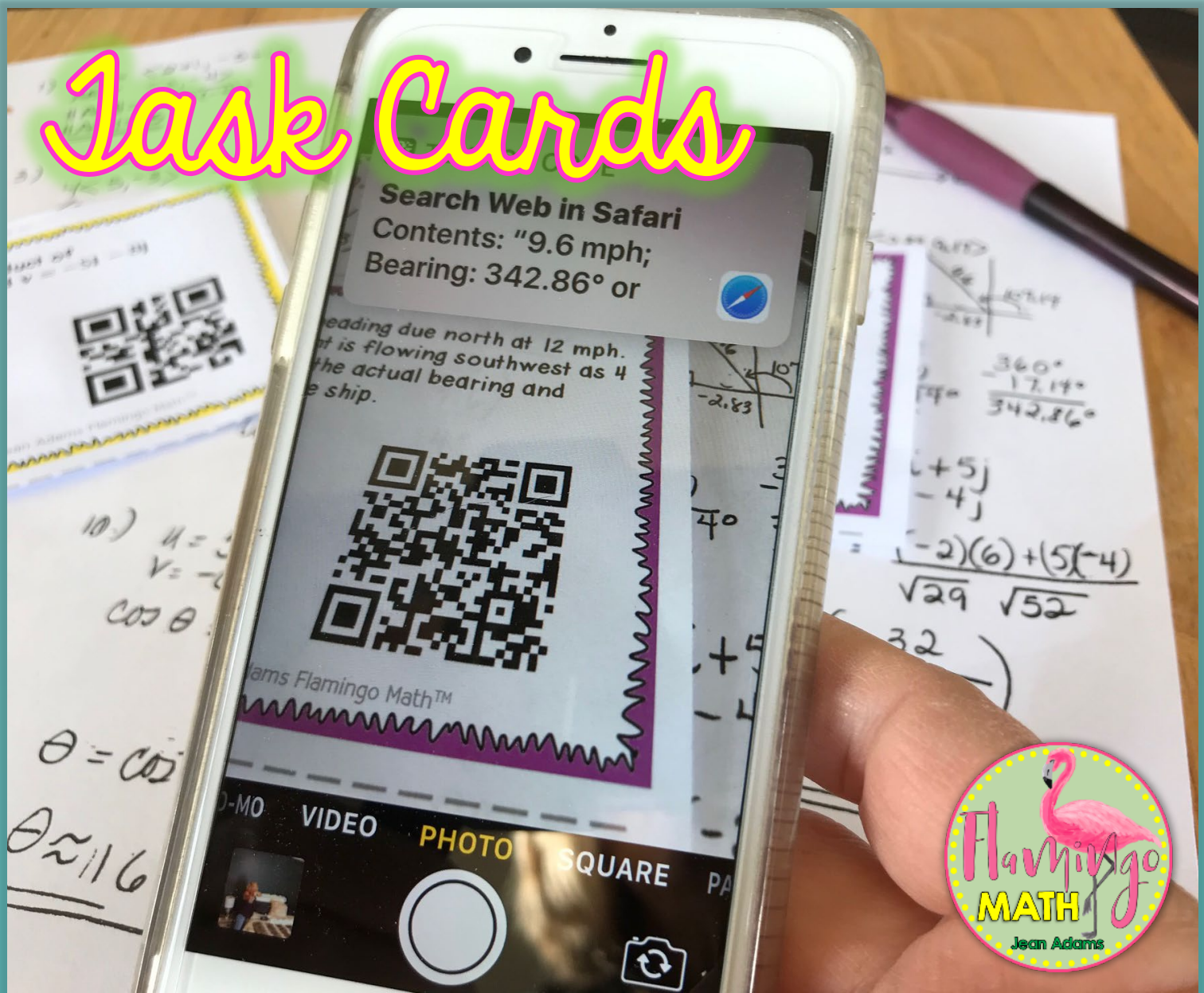
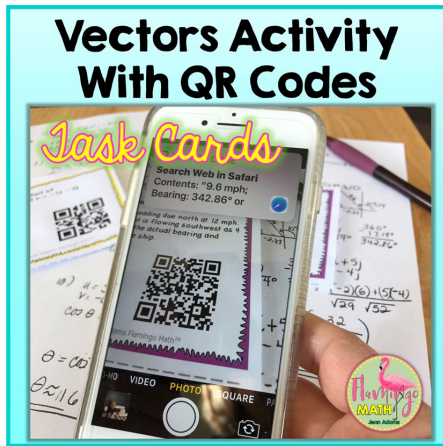


Vectors Activity With QR Codes

Task Cards



Vectors Activity with QR Codes



KEY CONCEPTS/TOPICS:

1. Review of vector operations.

GENERAL DIRECTIONS:

Students review the topics of vector operations and self-check their work with a QR code. There is a second set of cards that do not include the QR Code.

Product Overview

Vector Activity with QR Codes

This activity is designed to help your **Precalculus** students with vector operations in trigonometry as a mid-unit review for **Applications of Trigonometry**. There are 12 task cards in the activity. The cards cover the first half of my unit. Students will find magnitude, direction angles, unit vectors, work, force, bearings, dot product, and many other concepts.

Copy the task cards on card stock and laminate for durability. Students are provided a QR-Code to check their answers for each equation. Answers are given in both exact and decimal approximations.

A second set is also included without the QR Codes. Students can work in groups or independently.

[Please visit my store](#) for more engaging task card activities.

Find the magnitude of the vector $\overline{AB}$ if $A = (-1, -1)$ and $B = (2, -5)$

1



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Find the magnitude and direction angle of the vector. $u = \langle \sqrt{3}, 3 \rangle$

2



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Find $4u - 3v$, given $u = \langle 5, -3 \rangle$ and $v = \langle -2, -1 \rangle$

3



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Find the vector, given its magnitude is $|u| = 4$ and $\theta = \frac{\pi}{6}$

4



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Find a unit vector in the direction of $v = \langle -7, 24 \rangle$

5



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A 500 pound box is resting on a ramp that has an incline of 30° . What force is required to hold the box in place?

6



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An airplane is flying on a bearing of 110° at 560 mph. Find the component form of the velocity of the airplane.

7



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A ship is heading due north at 12 mph. The current is flowing southwest as 4 mph. Find the actual bearing and speed of the ship.

8



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Find the dot product of $u = -2i + 7j$ and $v = -5i - 8j$

9



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Find the angle between the vectors. $u = 5i + 2j$ and $v = -6i - j$

10



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A 2750-pound car is parked on a hill with a slant of 40° from the horizontal. How much force will keep it from rolling down the hill?

12



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Name _____ Date _____ Period _____

2.	
4.	
6.	
8.	
7.	
9.	
11.	

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