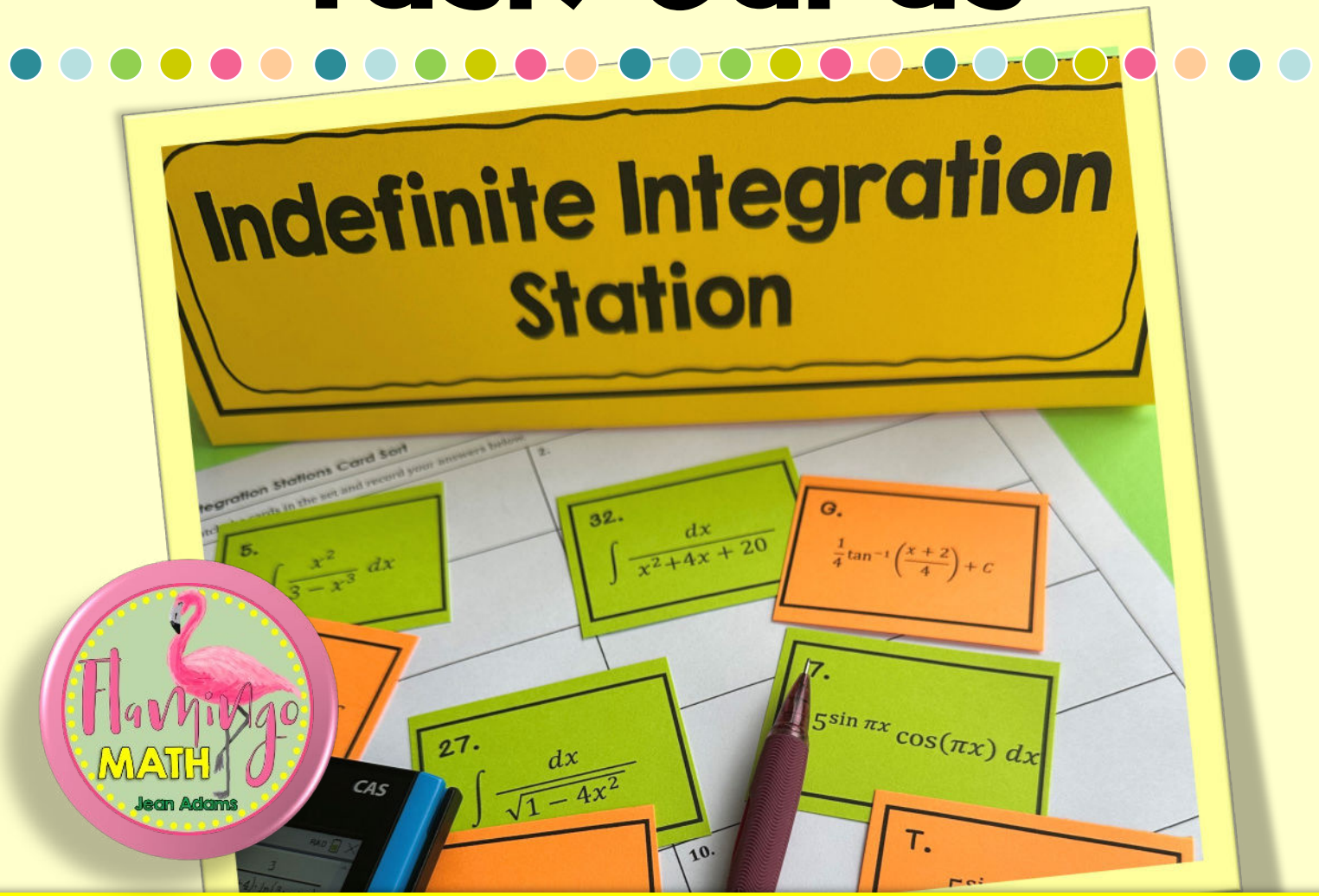
Indefinite Integration Task Cards



Station Activity

Indefinite Integrals Station Cards



KEY CONCEPTS/TOPICS:
★ Find indefinite integrals
Standards:

TOPIC 6.8: Find Antiderivatives Basic Rules and Notation
TOPIC 6.9: Integrating Using Substitution
TOPIC 6.10: Integrating Functions Using Long Division and Completing the Square
TOPIC 6.14: Selecting Techniques for Antidifferentiation

Product Overview

Indefinite Integration Stations Card Sort

PREPARATION:
Copy a student recording sheet for supporting work, if you want that accountability.
Copy each set of cards on a different color, (Numerical cards 1-32 and Alphabetic cards A-f).
Cut apart cards and laminate for durability. Place cards in a zipped bag for organization.
Create the table tent for your station review day.

GENERAL DIRECTIONS:
Students are given a set of numeric cards with an indefinite integral and a set of alphabetic cards with a solution set. Students work cooperatively to find a matched set. There is a student recording sheet to support work. The activity can also be used with only the numeric cards to reduce the "guessing" strategy.

Tape this edge to the opposite side to create a table tent

Copy this "table tent" on a colorful piece of cardstock. Then fold the tent lengthwise along the dotted lines. Tape the folded "flap" to secure a triangular shaped tent for the table.

Fold here

Indefinite Integration Station

Indefinite Integration Station

Preview

1. $\int e^{\ln x}\,dx$	**2.** $\int \frac{x}{\sqrt{1+2x^2}}\,dx$	**3.** $\int \frac{2^{3x}}{1+2^{3x}}\,dx$	**4.** $\int \tan(3x)\,dx$
5. $\int \frac{x^2}{3-x^3}\,dx$	**6.** $\int \frac{x^3}{x^2+1}\,dx$	**7.** $\int$ [illegible] dx	**8.** $\int \cot(4x)\,dx$
$\int t$ [illegible] $^3+4$	**10.** $\int \sin^3(x)\cos(x)dx$	**11.** $\int \frac{x^{\frac{1}{2}}}{1+x^{\frac{3}{2}}}\,dx$	**12.** $\int 2^{-3x}\,dx$
13. $\int \frac{x}{\sqrt{9-x^2}}\,dx$	**14.** $\int \frac{1}{x\ln(x)}\,dx$	**15.** $\int e^{2x+1}\,dx$	**16.** $\int \frac{1}{\sqrt{x+1}}\,dx$

Preview

Indefinite Integration Stations Card Sort Name:

Directions: Match the cards in the set and record your answers below.

1.	**2.**
3.	**4.**
5.	
7.	**8.**
9.	**10.**

Preview

A. $\frac{1}{2}x^2$ [illegible]	**B.** [illegible] $x)$	$\frac{1}{2}\sin^{-1}(t^2)+C$	**D.** $\frac{2}{9}(t+4)^{\frac{3}{2}}+C$
E. $-\frac{1}{3}\ln(\lvert\cos 3x\rvert)+C$	**F.** $30x^2+C$	**G.** $\frac{1}{4}\tan^{-1}\left(\frac{x+2}{4}\right)+C$	**H.** $\frac{1}{2}x^2+C$
I. $\frac{2}{3}\ln\left(1+x^{\frac{3}{2}}\right)+C$	**J.** $\ln(\ln x)+C$	**K.** $\frac{2}{3}(\tan x)^{\frac{3}{2}}+C$	**L.** $\frac{1}{5}\ln\lvert\csc 5x-\cot 5x+C\rvert$
M. $-\frac{3}{2}e^{-x^2}+C$	**N.** $\frac{1}{8}\tan^{-1}\left(\frac{t^2}{4}\right)+C$	**O.** $\frac{\ln(1+2^{3x})}{3\cdot\ln(2)}+C$	**P.** $\frac{1}{2}e^{2x+1}+C$

Preview