

# dSprites VSA

## 1 Introduction

The goal of this work is to extract the features of the image and represent them as multidimensional vectors, which, when summed up, will allow you to reconstruct the original image. Having started with a single object in the scene, we will try to move to a set of several objects.

## 2 Dataset

The task consists of three consecutive steps for each of which a different dataset was created.

### 2.1 Disentanglement Dataset

This dataset contains paired images from the dataset dSprites, which differ in one of the following features Table 1. An example of pairwise images in a dataset can be seen in the Figure 1

Table 1: List of features

Type	Description
Shape	square, ellipse, heart
Scale	6 values linearly spaced in $[0.5, 1]$
Orientation	40 values in $[0, 2 \pi]$
Position X	32 values in $[0, 1]$
Position Y	32 values in $[0, 1]$

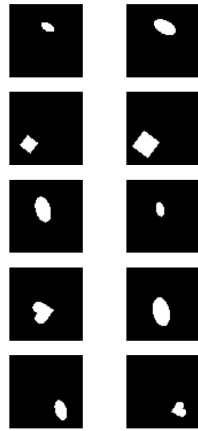


Figure 1: Dataset example