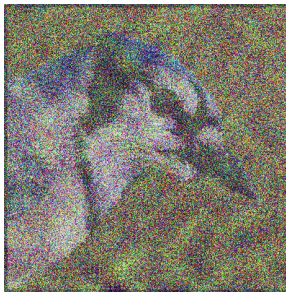




a: PhotoDNA Collision at $\Delta_d = 1720$

b: PDQ Collision at $\Delta_d = 86$



c: PhotoDNA Collision at $\Delta_d = 342$

d: PDQ Collision at $\Delta_d = 38$

Figure 1: Targeted-second-preimage collision pairs for PhotoDNA and PDQ at high (top) and low (bottom) matching thresholds. The image on the left in a pair is our attack image, while the image on the right is the target. A lower matching threshold implies a better collision, potentially at the cost of image quality.