

# L<sup>A</sup>T<sub>E</sub>X's Newtheorem

none

## 1 Test of standard theorem styles

**Lemma 1.1 (negatively curved families)** *Let  $\{ds_1^2, \dots, ds_k^2\}$  be a negatively curved family of metrics on  $\mathbf{D}_r$ , with associated forms  $\omega^1, \dots, \omega^k$ . Then  $\omega^i \leq \omega_r$  for all  $i$ .*

Then our main theorem:

**Theorem 1.2** *Let  $d_{\max}$  and  $d_{\min}$  be the maximum, resp. minimum distance between any two adjacent vertices of a quadrilateral  $Q$ . Let  $\sigma$  be the diagonal pigspan of a pig  $P$  with four legs. Then  $P$  is capable of standing on the corners of  $Q$  iff*

$$\sigma \geq \sqrt{d_{\max}^2 + d_{\min}^2}. \quad (1)$$

**Corollary 1.3** *Admitting reflection and rotation, a three-legged pig  $P$  is capable of standing on the corners of a triangle  $T$  iff (1) holds.*