

Some slides with a Khalifa University beamer theme

This is a dummy subtitle

Andrei Sleptchenko

10 July 2018

A first test frame

Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

A test frame

with a subtitle

Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

Test frame with overflow

Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

Nulla malesuada porttitor diam. Donec felis erat, congue non, volutpat at, tincidunt tristique, libero. Vivamus viverra fermentum felis. Donec nonummy pellentesque ante. Phasellus adipiscing semper elit. Proin fermentum massa ac quam. Sed diam turpis, molestie vitae, placerat a, molestie nec, leo. Maecenas lacinia. Nam ipsum ligula, eleifend at, accumsan nec, suscipit a, ipsum. Morbi blandit ligula feugiat magna. Nunc eleifend consequat lorem. Sed lacinia nulla vitae enim. Pellentesque tincidunt purus vel magna. Integer non enim. Praesent euismod nunc eu purus. Donec bibendum quam in tellus. Nullam cursus pulvinar lectus. Donec et mi. Nam vulputate metus eu enim. Vestibulum pellentesque felis eu massa.

The is a test frame with a pretty long frame title

Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.

Test frame with itemize

- ▶ firstly
- ▶ secondly
 - ▶ sub-item
 - ▶ another sub-item
- ▶ thirdly

A math frame

Theorem (Pythagoras)

*The square of the hypotenuse of a **right** triangle is equal to the sum of the squares on the other two sides:*

$$a^2 + b^2 = c^2.$$

Proof.

Straightforward. □

A math frame

with plotting of math functions

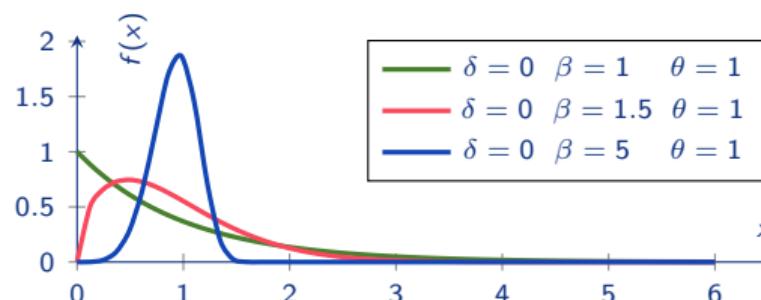
Definition (Weibull Random Variable)

A random variable is said to be **Weibull distributed** with parameters δ, β and $\theta > 0$, if its probability density function is given by:

$$f(t) = \frac{\beta}{\theta} \left(\frac{t - \delta}{\theta} \right)^{\beta-1} e^{-\left(\frac{t-\delta}{\theta}\right)^\beta}, \quad t \geq 0$$

The parameters are called:

θ – the scale parameter, β – the shape parameter, δ – the location parameter.



Environments

Definition

A **prime number** (or a prime) is a natural number which has exactly two distinct natural number divisors: 1 and itself.

Example

The first five prime numbers are 2, 3, 5, 7, and 11.

Alert block

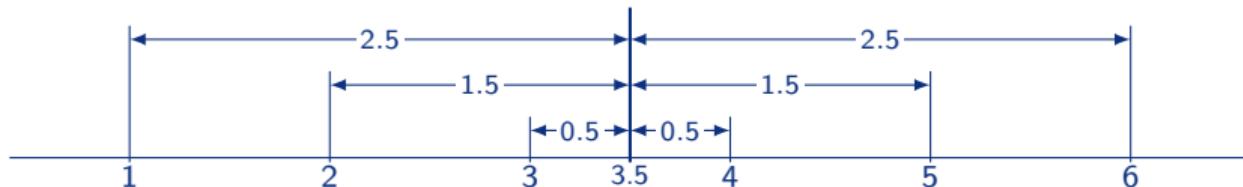
Note that 1 is not a prime number.

Using graphics

with the help of the TikZ library

Exercise

Compute $\text{Var}[X]$ when X represents the dice-rolling experiment using the definitions above.



$$\begin{aligned}\text{Var}[X] &= E[X - E[X]^2] \\ &= \frac{1}{6}2.5^2 + \frac{1}{6}1.5^2 + \frac{1}{6}0.5^2 + \frac{1}{6}0.5^2 + \frac{1}{6}1.5^2 + \frac{1}{6}2.5^2 = 2.916667\end{aligned}$$

$$\begin{aligned}\text{Var}[X] &= E[X - E[X]^2] = E[X^2] - E[X]^2 \\ &= \frac{1}{6}(1^2 + 2^2 + 3^2 + 4^2 + 5^2 + 6^2) - 3.5^2 = 2.916667\end{aligned}$$

Color definitions

| COLOR | RGB | CMYK | HTML |
|--------------------------|-------------|---------------------------|--------|
| structure.fg | 18,70,181 | 0.6392,0.43529,0,0.2902 | 1246B5 |
| structure.bg | 248,72,94 | 0,0.6902,0.60391,0.02745 | F8485E |
| alerted text.fg | 248,72,94 | 0,0.6902,0.60391,0.02745 | F8485E |
| example text.fg | 0,128,0 | 0.5,0,0.5,0.5 | 008000 |
| normal text.fg | 13,49,127 | 0.44743,0.30469,0,0.50314 | 0D317F |
| | 255,255,255 | 0,0,0 | FFFFFF |
| myblock title bg | 18,70,181 | 0.6392,0.43529,0,0.2902 | 1246B5 |
| myblock body fg | 14,56,145 | 0.51135,0.34822,0,0.43216 | 0E3891 |
| myblock body bg | 236,240,249 | 0.05115,0.03484,0,0.02321 | ECF0F9 |
| | 255,255,255 | 0,0,0 | FFFFFF |
| myblock title alerted bg | 248,72,94 | 0,0.6902,0.60391,0.02745 | F8485E |
| palette secondary fg | 14,53,136 | 0.4794,0.32646,0,0.46765 | 0E3588 |
| palette secondary bg | 248,72,94 | 0,0.6902,0.60391,0.02745 | F8485E |