Subfigure, Math, Bibliography

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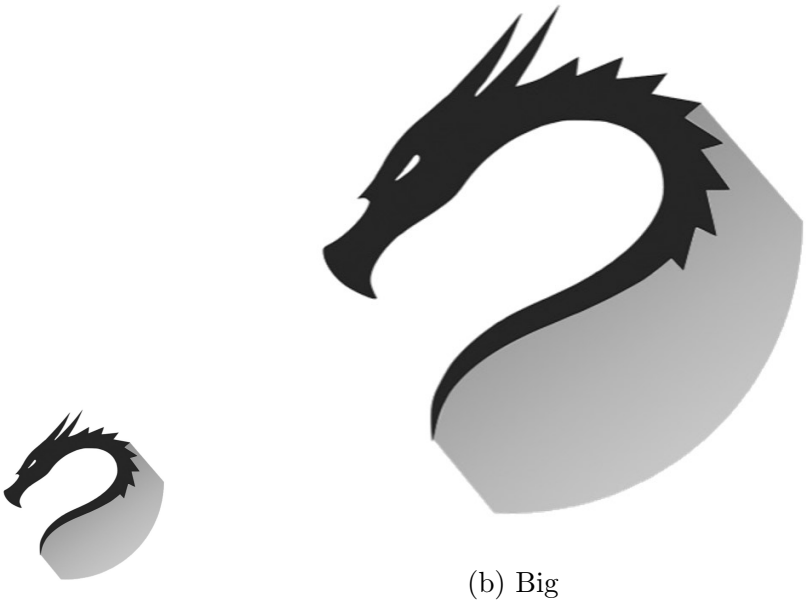
1 Subfigure



(a) Small

(b) Big

Figure 1: Beach

2 Math

2.1 Inline

$\forall x, x$ is positive and $x \leq 5$.

2.2 Equation

2.2.1 Algebra

$$x = y \tag{1}$$

$$x_1^2 + x_2 = \sqrt{x + y}$$

$$\binom{n}{k} = \frac{n!}{k!(n-k)!} \tag{2}$$

2.2.2 Trigonometric

$$\sin^2\theta + \cos^2\theta = 1 \tag{3}$$

$$\begin{aligned}\cos^2\theta &= \frac{1}{2}.2\cos^2\theta \\ &= \frac{1}{2}(1+\cos 2\theta)\end{aligned}$$

2.2.3 Calculus

$$\lim_{x\to 0}\frac{\sin x}{x} = 1 \tag{4}$$

$$\frac{d}{dx}e^x = e^x \tag{5}$$

$$\frac{\partial}{\partial x}e^x = e^x \tag{6}$$

$$\int x^3 dx = \frac{x^4}{4} + c \tag{7}$$

$$\int_b^a f(x)dx \tag{8}$$

2.2.4 Showing Multiple Lines Of Calculations

$$\begin{aligned}\cos^2\theta &= \frac{1}{2}.2\cos^2\theta \\ &= \frac{1}{2}.(1+\cos 2\theta)\end{aligned}$$

2.2.5 Piece-Wise Functions

$$F(x) = \begin{cases} 100 & \text{if } x > 0 \\ 0 & \text{otherwise} \end{cases} \tag{9}$$

2.2.6 Miscellaneous

$$\bigcup_{i=1}^{n} A_i \leq \sum_{i=1}^{n} |A_i| \tag{10}$$

$$\bigcup_{i=1}^{n} A_i \leq \sum_{i=1}^{n} |A_i| \tag{11}$$

In algebra, a quadratic equation is any equation having the form $ax^2+bx+c = 0$ where x represents an unknown, and a, b, and c represent known numbers, with $a \neq 0$. It can easily be seen, by polynomial expansion, that the following equation is equivalent to the quadratic equation:

$$\left(x + \frac{b}{2a}\right)^2 = \frac{b^2 - 4ac}{4a^2}$$

Taking the square root of both sides, and isolating x, gives:

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \tag{12}$$

2.3 Some Equations:

$$f_1(t) = \int_3^5 sin(x)dx$$

$$F(x) = A_0 + \sum_{n=1}^{N} \left[A_n cos\left(\frac{2\pi nx}{P}\right) + B_n sin\left(\frac{2\pi nx}{P}\right)\right]$$

$$\lim_{x \to a} \frac{f(x) - f(a)}{x - a}$$

$$\binom{a}{b+c}\binom{\frac{n^2-1}{2}}{n+1}$$

$$h \leq \sqrt{\frac{(s-a)(s-b)(s-c)}{s}}$$

$$6CO_2 + 6H_2O \rightarrow C_6H_{12}O_6 + 6O_2$$

$$\frac{1}{\log_2 x}$$

3 Bibliography

For any help, take a look at [1].

References

[1] Wikibooks. Latex — wikibooks, the free textbook project, 2019. [Online; accessed 13-July-2019].