

1.

16. 5, 6, 7, 7, 7, 7, 8, 9

Mode: 7  
Med: 7 #  
 $\bar{X} = \frac{49}{7} = 7$

10  
10  
k, 10

17.  $a, b \in \mathbb{Z}^+$  3 หลัก

$(a, b) = 50$      $a = 50k$      $b = 50m$   
 $[a, b] = 600$      $(k, m) = 1$   
 $50[k, m] = 600$      $k = 3$      $a = 150$   
 $[k, m] = 12$      $\rightarrow m = 4$      $b = 200$   
 $a + b = 350 \#$

2.

18. นิสิตเข้าสอบ 800  
ติดสอบ 9%    ตก 50%    มีใบ 40%  
↓  
a

$$\frac{a - 800}{800} \times 100 = 40$$
$$\frac{a - 800}{800} = 0.4$$
$$a - 800 = 320$$
$$a = 1120$$
$$a = 2940 \#$$

19.  $N = 40$

อันดับ	Rank
อันดับ 65	19
อันดับ 62	20
อันดับ 60	21

192  
}  $\frac{62+60}{2} = 61$

$$\text{Med} = 9 \in \text{อันดับ} = \frac{40+1}{2} = 20.5$$

$$n(P(A)) = 2^4 = 16$$

$$20. A = \{\emptyset, \{\emptyset\}, \{0\}, \{0\}\}$$

$$P(A) = \{\emptyset, \{\emptyset\}, \{\{\emptyset\}\}, \{\emptyset, \{\emptyset\}\}, \{\{0\}\}, \{\emptyset, \{0\}\}, \{\{\emptyset, \{0\}\}\}, \{\emptyset, \{\emptyset, \{0\}\}\}, \dots$$

$$= n[(A - P(A)) \times (P(A) - A)]$$

$$n(P(A) - A) = 16 - 3 = 13$$

$$= n(A - P(A)) \times n(P(A) - A)$$

$$= 1 \times 13 = 13 \#$$

↑  
 $\emptyset, \{\emptyset\}, \{0\}$



1.  $\log_5 25 = \frac{25}{25^3}$

$\log_5 25 = \log_5 \left(\frac{25}{25^3}\right)$

$(\log_5 25)(\log_5 25) = 2 - (\log_5 25^3)$

$k \cdot \log_5 25; 2k \times k = 2 - 3k$   
 $2k^2 + 3k - 2 = 0$   
 $(2k-1)(k+2) = 0$

2.  $f(x) = 3x+1$   $f'(x) = 3$   
 $(f \circ g)'(x) = 3g'(x) + 1$   
 $g(x) = 1$   
 $\int_0^1 g(x) dx$

$(f \circ g(x))' = 3g'(x) + 1$

$f'(g(x)) \times g'(x) = 3g'(x) + 1$

$3 \times g'(x) = 3g'(x) + 1$

$g'(x) = \frac{1}{3}$

$g(x) = \frac{x^3}{3} + \frac{x}{3} + C$

$g(0) = C = 1$

$g(x) = \frac{x^3}{3} + \frac{x}{3} + 1$

$\int_0^1 g(x) dx = \left[ \frac{x^4}{12} + \frac{x^2}{6} + x \right]_0^1$

$= \frac{1+1+1}{12}$

$= \frac{3}{4}$

6.  $\lim_{h \rightarrow 0} \frac{N(t+h) - N(t)}{h}$

$= \lim_{h \rightarrow 0} \frac{\frac{8}{(t+h)+1} - \frac{8}{t+1}}{h}$

$= \lim_{h \rightarrow 0} \frac{8}{h} \left( \frac{1}{t+h+1} - \frac{1}{t+1} \right)$

$= \lim_{h \rightarrow 0} \frac{8}{h} \left( \frac{-h}{(t+h+1)(t+1)} \right)$

$= \lim_{h \rightarrow 0} \frac{-8}{(t+h+1)(t+1)}$

$= \frac{-8}{(t+1)^2} \quad t=3; = \frac{-8}{16} = -0.5 \text{ g/gm}^2$

3.  $1-01 < -\frac{9}{7} < 7-01$

$1-01 < -\frac{9}{7} \quad -\frac{9}{7} < 7-01$

$7-901 < -3 \quad -3 < 49-701$

$701 > 10 \quad 701 < 52$

$k \cdot \frac{1}{2} \cdot 2 = \frac{1}{25}$

$\frac{1}{25} \#$

$\frac{10}{7} < 0 < \frac{22}{7}$

$1.4 < 0 < 1.4$

$2, 3, 4, 5, 6, 7$

6.  $N = \frac{8}{1+1} \quad 110; N=8$   
 $1.1; N=2$

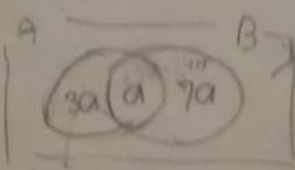
7.  $2 \left( \frac{n}{2-1} \right) = 610$   
 $2^{n-1} = 295$   
 $2^n = 590$   
 $n = 8$

4. 25% of A ∈ B

17.5% of B ∈ A

$n((A-B) \cup (B-A)) = 120$

$n(A \cup B)$



$a \cdot \frac{25}{100} (n(A)) \rightarrow n(A) = 4a$

$a \cdot \frac{17.5}{100} n(B) \rightarrow n(B) = 7a$

$3a + 7a = 120$   
 $a = 12$

$n(A \cup B) = 11a$

$= 132 \#$

5.  $\vec{OA} \times \vec{OB} = (-4, 0) \cdot (9, 0)$

$\vec{Y} = (0, 16)$

$y = 16(0-h)^2 + k$

