L2-MATHMF





Te Pāngarau me te Tauanga, Kaupae 2, 2020

9.30 i te ata Rāpare 19 Whiringa-ā-rangi 2020

PUKA TIKANGA TĀTAI mō 91261M, 91262M, 91267M

Tirohia tēnei puka hei whakatutuki i ngā tūmahi o ō Pukapuka Tūmahi, Tuhinga hoki.

Tirohia mēnā e tika ana te raupapatanga o ngā whārangi 2 – 3 kei roto i tēnei pukapuka, ka mutu, kāore tētahi o aua whārangi i te takoto kau.

KA TAEA TĒNEI PUKA TE PUPURI HEI TE MUTUNGA O TE WHAKAMĀTAUTAU.

Whārite pūrua

Mēnā
$$ax^2 + bx + c = 0$$

kāti $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$
ā $\Delta = b^2 - 4ac$

Taupū kōaro

Mēnā
$$y = b^x$$
 kāti $x = \log_b y$

$$\log_b(xy) = \log_b(x) + \log_b(y)$$

$$\log_b\left(\frac{x}{y}\right) = \log_b(x) - \log_b(y)$$

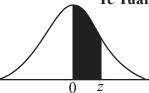
$$\log_b\left(x^n\right) = n\log_b x$$
Mēnā $y = e^x$ kāti $x = \log_e y \left(= \ln y\right)$

Tuanaki

$$\frac{\mathrm{d}}{\mathrm{d}x}\Big(x^n\Big) = nx^{n-1}$$

Mēnā
$$f'(x) = x^n$$
, kāti $f(x) = \frac{x^{n+1}}{n+1} + c$

Te Tuaritanga Hangarite Aro Whānui



2

$$\left(z = \frac{x - \mu}{\sigma}\right)$$

Ko ia tau e whakaatu ana i te tūponotanga ka noho mai te taurangi matap \bar{o} kere hangarite aro wh \bar{a} nui o te Z ki waenganui i te 0 me te z.

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0.1 0.398 0.438 0.478 0.517 0.557 0.559 0.636 0.675 0.714 0.754 4 8 12 16 20 24 28 32 0.2 0.793 0.832 0.871 0.910 0.948 0.987 1.026 1.064 1.103 1.141 4 8 12 15 19 22 27 31 0.3 1.79 1.217 1.255 1.293 1.331 1.368 1.406 1.443 1.480 1.517 4 8 11 15 19 22 26 30 0.4 1.554 1.591 1.628 1.664 1.700 1.736 1.772 1.808 1.844 1.879 4 7 11 14 18 22 25 29 0.5 1.915 1.950 1.985 2.019 2.054 2.088 2.123 2.157 2.190 2.224 3 7 10 14 17 21 24 27 0.6 2.258 2.291 2.324 2.357 2.389 2.422 2.454 2.486 2.518 2.549 3 6 10 3 16 19 2.3 2.6 0.7 2.580 2.612 2.642 2.673 2.704 2.734 2.764 2.794 2.823 2.852 3 6 9 12 15 18 2.1 2.4 2.6 0.7 2.580 2.612 2.642 2.673 2.704 2.734 2.764 2.794 2.823 2.852 3 6 9 12 15 18 2.1 2.4 2.6 0.7 2.580 2.612 2.642 2.673 2.704 2.734 2.764 2.794 2.823 2.852 3 6 9 12 15 18 2.1 2.0 2.0 3.159 3.186 3.212 3.238 3.264 3.289 3.315 3.340 3.365 3.389 3 5 8 10 13 15 18 2.0 1.0 3.413 3.438 3.461 3.485 3.508 3.531 3.554 3.577 3.599 3.621 2 5 7 9 12 14 16 18 1.1 3.643 3.665 3.686 3.708 3.729 3.749 3.770 3.790 3.810 3.830 2 4 6 8 10 13 15 18 2.0 1.3	z	0	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
0.1 0.398 0.438 0.478 0.517 0.557 0.559 0.636 0.675 0.714 0.754 4 8 12 16 20 24 28 32 0.2 0.793 0.832 0.871 0.910 0.948 0.987 1.026 1.064 1.103 1.141 4 8 12 15 19 22 27 31 0.3 1.179 1.217 1.255 1.293 1.331 1.368 1.406 1.443 1.480 1.517 4 8 11 15 19 22 26 30 0.4 1.554 1.591 1.628 1.664 1.700 1.736 1.772 1.808 1.844 1.879 4 7 11 14 18 22 25 29 0.5 1.915 1.950 1.985 2.019 2.054 2.088 2.123 2.157 2.190 2.224 3 7 10 14 17 21 24 27 0.6 2.258 2.291 2.324 2.357 2.389 2.422 2.454 2.486 2.518 2.549 3 6 10 3 16 19 2.3 2.6 0.7 2.580 2.612 2.642 2.673 2.704 2.734 2.764 2.794 2.823 2.852 3 6 9 12 15 18 21 2.4 2.6 0.7 2.580 2.612 2.642 2.673 2.704 2.734 2.764 2.794 2.823 2.852 3 6 9 12 15 18 21 2.4 2.6 0.7 2.580 2.612 2.642 2.673 2.704 2.734 2.764 2.794 2.823 2.852 3 6 9 12 15 18 2.1 2.0 2.0 3.159 3.186 3.212 3.238 3.264 3.289 3.315 3.340 3.365 3.389 3 5 8 10 13 15 18 2.0 1.0 3.413 3.438 3.461 3.485 3.508 3.531 3.554 3.577 3.599 3.621 2 5 7 9 12 14 16 18 1.1 3.643 3.665 3.686 3.708 3.799 3.749 3.770 3.790 3.810 3.330 2 4 6 8 10 13 15 18 2.0 1.3	0.0	.0000	.0040	.0080	.0120	.0160	.0199	.0239	.0279	.0319	.0359	4	8	12	16	20	24	28	32	36
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0.8 2881 2910 2939 2967 2996 3023 3051 3078 3106 3133 3 6 8 11 14 17 19 22 0.9 3159 3186 3212 3238 3264 3289 3315 3340 3365 3389 3 5 8 10 13 15 18 20 1.0 3413 3438 3461 3485 3508 3531 3577 3599 3621 2 5 7 9 12 14 16 18 1.1 3643 3665 3686 3708 3729 3749 3770 3790 3810 3830 2 4 6 8 10 12 14 16 18 1.2 3849 3869 3888 3907 3925 3944 3962 3980 3997 4015 2 4 6 8 10 11 10	0.6	.2258	.2291	.2324	.2357	.2389	.2422	.2454	.2486	.2518	.2549	3	6	10	13	16	19	23	26	29
0.9 3159 3186 3212 3238 3264 3289 3315 3340 3365 3389 3 5 8 10 13 15 18 20	0.7	.2580	.2612	.2642	.2673	.2704	.2734	.2764	.2794	.2823	.2852	3	6	9	12	15	18	21	24	27
1.0 .3413 .3485 .3485 .3508 .3531 .3554 .3577 .3599 .3621 2 5 7 9 12 14 16 18 1.1 .3643 .3665 .3686 .3708 .3729 .3749 .3770 .3790 .3810 .3830 2 4 6 8 10 12 14 16 1.2 .3849 .3869 .3888 .3907 .3925 .3944 .3962 .3980 .3997 .4015 2 4 5 7 9 11 13 15 1.3 .4032 .4049 .4066 .4082 .4099 .4115 .4131 .4147 .4162 .4177 2 3 5 6 8 10 11 13 14 .4192 .4207 .4222 .4236 .4251 .4265 .4279 .4292 .4306 .4319 1 3 4 6 7 8 10 1.6 .4452 .4463 .4474 .4484 .4495 .4505	0.8	.2881	.2910	.2939	.2967	.2996	.3023	.3051	.3078	.3106	.3133	3	6	8	11	14	17	19	22	25
1.1 .3643 .3665 .3686 .3708 .3729 .3749 .3770 .3790 .3810 .3830 2 4 6 8 10 12 14 16 1.2 .3849 .3869 .3888 .3907 .3925 .3944 .3962 .3980 .3997 .4015 2 4 5 7 9 11 13 15 1.3 .4032 .4049 .4066 .4082 .4099 .4115 .4131 .4147 .4162 .4177 2 3 5 6 8 10 11 13 1.4 .4192 .4207 .4222 .4236 .4251 .4265 .4279 .4292 .4306 .4319 1 3 4 6 7 8 10 11 1.5 .4332 .4345 .4357 .4370 .4382 .4394 .4406 .4418 .4429 .4441 1 2 4 5 6 7 8 10 1.6 .4452 .4463 .4474 .4484 .4495	0.9	.3159	.3186	.3212	.3238	.3264	.3289	.3315	.3340	.3365	.3389	3	5	8	10	13	15	18	20	23
1.2 3849 3869 3888 3907 3925 3944 3962 3980 3997 4015 2 4 5 7 9 11 13 15 1.3 4032 4049 4066 4082 4099 4115 4131 4147 4162 4177 2 3 5 6 8 10 11 13 14 4192 4207 4222 4236 4251 4265 4279 4292 4306 4319 1 3 4 6 7 8 10 11 1.5 4332 4345 4357 4370 4382 4394 4406 4418 4429 4441 1 2 4 5 6 7 8 10 1.6 4452 4463 4474 4484 4495 4505 4515 4525 4535 4545 1 2 3 4 5 6 7 8 1.7 4554 4564 4573 4582 4591 45946 4686	1.0	.3413	.3438	.3461	.3485	.3508	.3531	.3554	.3577	.3599	.3621	2	5	7	9	12	14	16	18	21
1.3 4032 4049 4066 4082 4099 4115 4131 4147 4162 4177 2 3 5 6 8 10 11 13 1.4 4192 4207 4222 4236 4251 4265 4279 4292 4306 4319 1 3 4 6 7 8 10 11 1.5 4332 4345 .4357 .4370 .4382 .4394 .4406 .4418 .4429 .4441 1 2 4 5 6 7 8 10 1.6 .4452 .4463 .4474 .4484 .4495 .4550 .4515 .4525 .4535 .4545 1 2 3 4 5 6 7 8 10 1.6 .4452 .4463 .4474 .4484 .4495 .4505 .4515 .4525 .4535 .4545 1 2 3 4 5 6 7 8 10 1.8 .4614 .4644 .4573	1.1	.3643	.3665	.3686	.3708	.3729	.3749	.3770	.3790	.3810	.3830	2	4	6	8	10	12	14	16	19
1.4 4192 .4207 .4222 .4236 .4251 .4265 .4279 .4292 .4306 .4319 1 3 4 6 7 8 10 11 1.5 .4332 .4345 .4357 .4370 .4382 .4394 .4406 .4418 .4429 .4441 1 2 4 5 6 7 8 10 1.6 .4452 .4463 .4474 .4484 .4495 .4505 .4515 .4525 .4535 .4545 1 2 3 4 5 6 7 8 1.7 .4554 .4564 .4573 .4582 .4591 .4599 .4608 .4616 .4625 .4633 1 2 3 4 5 6 7 8 1.8 .4641 .4649 .4656 .4664 .4671 .4678 .4686 .4699 .4706 1 1 2 2 3 4 4 5 2.0 .4772 .4778 .4783 .4788 .4893	1.2	.3849	.3869	.3888	.3907	.3925	.3944	.3962	.3980	.3997	.4015	2	4	5	7	9	11	13	15	16
1.5 .4332 .4345 .4357 .4370 .4382 .4394 .4406 .4418 .4429 .4441 1 2 4 5 6 7 8 10 1.6 .4452 .4463 .4474 .4484 .4495 .4505 .4515 .4525 .4535 .4545 1 2 3 4 5 6 7 8 1.7 .4554 .4564 .4573 .4582 .4591 .4599 .4608 .4616 .4625 .4633 1 2 3 3 4 5 6 7 8 1.8 .4641 .4649 .4656 .4664 .4671 .4678 .4686 .4693 .4699 .4706 1 1 2 3 4 4 5 6 7 1.9 .4713 .4719 .4726 .4732 .4738 .4744 .4750 .4756 .4761 .4767 1 1 2 2 3 3 4 2.0 .4772 .4778 .4788	1.3	.4032	.4049	.4066	.4082	.4099	.4115	.4131	.4147	.4162	.4177	2	3	5	6	8	10	11	13	14
1.6 .4452 .4463 .4474 .4484 .4495 .4505 .4515 .4525 .4535 .4545 1 2 3 4 5 6 7 8 1.7 .4554 .4564 .4573 .4582 .4591 .4599 .4608 .4616 .4625 .4633 1 2 3 3 4 5 6 7 1.8 .4641 .4649 .4656 .4664 .4671 .4678 .4686 .4693 .4699 .4706 1 1 2 3 4 4 5 6 7 1.9 .4713 .4719 .4726 .4732 .4738 .4744 .4750 .4756 .4761 .4767 1 1 2 2 3 4 4 5 2.0 .4772 .4778 .4783 .4788 .4793 .4798 .4803 .4881 .4817 .0 1 1 2 2 3 3 4 5 2.0 .4772 .4783 .4788 <td< td=""><td>1.4</td><td>.4192</td><td>.4207</td><td>.4222</td><td>.4236</td><td>.4251</td><td>.4265</td><td>.4279</td><td>.4292</td><td>.4306</td><td>.4319</td><td>1</td><td>3</td><td>4</td><td>6</td><td>7</td><td>8</td><td>10</td><td>11</td><td>13</td></td<>	1.4	.4192	.4207	.4222	.4236	.4251	.4265	.4279	.4292	.4306	.4319	1	3	4	6	7	8	10	11	13
1.7 4554 4564 4573 4582 4591 4599 4608 4616 4625 4633 1 2 3 3 4 5 6 7 1.8 4641 4649 4656 4664 4671 4678 4686 4693 4699 4706 1 1 2 3 4 4 5 6 1.9 4713 4719 4726 4732 4738 4744 4750 4756 4761 4767 1 1 2 2 3 4 4 5 2.0 4772 4778 4783 4788 4793 4798 4803 4808 4812 4817 0 1 1 2 2 3 3 4 5 2.0 4772 4778 4783 4788 4893 4881 4881 4887 4857 0 1 1 2 2 3 3 4 5 2.0 4861 4864 4886 4871 4878 4881	1.5	.4332	.4345	.4357	.4370	.4382	.4394	.4406	.4418	.4429	.4441	1	2	4	5	6	7	8	10	11
1.8 4641 .4649 .4656 .4664 .4671 .4678 .4686 .4699 .4706 1 1 2 3 4 4 5 6 1.9 .4713 .4719 .4726 .4732 .4738 .4744 .4750 .4756 .4761 .4767 1 1 2 2 3 4 4 5 2.0 .4772 .4778 .4783 .4788 .4793 .4798 .4803 .4801 .4817 0 1 1 2 2 3 3 4 2.1 .4821 .4826 .4830 .4834 .4842 .4846 .4857 .4857 0 1 1 2 2 3 3 4 2.2 .4861 .4864 .4868 .4871 .4875 .4878 .4881 .4884 .4887 .4890 0 1 1 2 2 2 3 3 3 4 2.3 .4893 .4896 .4898 .4901 .4906 .4901 .	1.6	.4452	.4463	.4474	.4484	.4495	.4505	.4515	.4525	.4535	.4545	1	2	3	4	5	6	7	8	9
1.9 4713 4719 4726 4732 4738 4744 4750 4756 4761 4767 1 1 2 2 3 4 4 5 2.0 4772 4778 4783 4788 4793 4798 4803 4802 4817 0 1 1 2 2 3 3 4 2.1 4821 4826 4830 4834 4838 4842 4846 4857 0 1 1 2 2 3 3 4 2.2 4861 4864 4868 4871 4875 4878 4881 4884 4887 4890 0 1 1 2 2 2 3 3 2.3 4893 4896 4898 4901 4906 4909 4911 4913 4916 0 0 1 1 1 2 2 2 3 3 4 2.4 4918 4920 4925 4921 4929 4931 4932 4934	1.7	.4554	.4564	.4573	.4582	.4591	.4599	.4608	.4616	.4625	.4633	1	2	3	3	4	5	6	7	8
2.0	1.8	.4641	.4649	.4656	.4664	.4671	.4678	.4686	.4693	.4699	.4706	1	1	2	3	4	4	5	6	6
2.1 4821 .4826 .4830 .4834 .4838 .4842 .4846 .4850 .4857 0 1 1 2 2 2 3 3 2.2 .4861 .4864 .4868 .4871 .4878 .4881 .4887 .4890 0 1 1 1 2 2 2 3 3 2.3 .4893 .4896 .4898 .4901 .4904 .4906 .4909 .4911 .4913 .4916 0 0 1 1 1 2	1.9	.4713	.4719	.4726	.4732	.4738	.4744	.4750	.4756	.4761	.4767	1	1	2	2	3	4	4	5	5
2.2 4861 .4864 .4868 .4871 .4875 .4878 .4881 .4887 .4890 0 1 1 1 2 2 2 3 2.3 .4893 .4896 .4898 .4901 .4904 .4906 .4909 .4911 .4913 .4916 0 0 1 1 1 2	2.0	.4772	.4778	.4783	.4788	.4793	.4798	.4803	.4808	.4812	.4817	0	1	1	2	2	3	3	4	4
2.3 .4893 .4896 .4898 .4901 .4904 .4906 .4909 .4911 .4913 .4916 0 0 1 1 1 2 2 2 2.4 .4918 .4920 .4925 .4927 .4929 .4931 .4932 .4936 0 0 1 1 1 1 2 2 2 2.5 .4938 .4940 .4941 .4943 .4945 .4946 .4948 .4949 .4951 .4952 0 0 0 1	2.1	.4821	.4826	.4830	.4834	.4838	.4842	.4846	.4850	.4854	.4857	0	1	1	2					4
2.4 4918 .4920 .4922 .4925 .4927 .4929 .4931 .4932 .4934 .4936 0 0 1<	2.2	.4861	.4864	.4868	.4871	.4875	.4878	.4881	.4884	.4887	.4890	0	1	1	1	2	2	2		3
2.5	2.3	.4893	.4896	.4898	.4901	.4904	.4906	.4909	.4911	.4913	.4916	0	0	1	1	1	2	2	2	2
2.6 4953 4955 4956 4957 4959 4960 4961 4962 4963 4964 0 0 0 0 0 1 1 1 1 1 1 1 2.7 4965 4966 4967 4968 4969 4970 4971 4972 4973 4974 0 0 0 0 0 0 0 1 1 1 1 1 1 1 2.8 4974 4975 4976 4977 4977 4978 4979 4980 4981 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2.4	.4918	.4920	.4922	.4925	.4927	.4929	.4931	.4932	.4934	.4936	0	0	1	1	1	1	1	2	2
2.7 .4965 .4966 .4967 .4968 .4969 .4970 .4971 .4973 .4974 0 <td>2.5</td> <td>.4938</td> <td>.4940</td> <td>.4941</td> <td>.4943</td> <td>.4945</td> <td>.4946</td> <td>.4948</td> <td>.4949</td> <td>.4951</td> <td>.4952</td> <td>0</td> <td>0</td> <td>0</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td>	2.5	.4938	.4940	.4941	.4943	.4945	.4946	.4948	.4949	.4951	.4952	0	0	0	1	1	1	1	1	1
2.8 4974 4975 4976 4977 4978 4979 4980 4981 0	2.6	.4953	.4955	.4956	.4957	.4959	.4960	.4961	.4962	.4963	.4964	0	0	0	0	1	1	1	1	1
2.9 .4981 .4982 .4982 .4983 .4984 .4985 .4985 .4986 .4990 .4990 .4990 .4990 .4990 .4990 .4990 .4990 .4990 .4990 .4990 .4990 .4990 .4990 .4990 .4990 .4993 .4993 .4993 .4993 .4993 .4993 .4995 .4995 .4995 .4995 .4995 .4995 .4996 .	2.7	.4965	.4966	.4967	.4968	.4969	.4970	.4971	.4972	.4973	.4974	0	0	0	0	0	1	1	1	1
3.0												0	-	-		-	-			1
3.1 .4990 .4991 .4991 .4992 .4992 .4992 .4993 .4993 .4993 0 <td>2.9</td> <td>.4981</td> <td>.4982</td> <td>.4982</td> <td>.4983</td> <td>.4984</td> <td>.4984</td> <td>.4985</td> <td>.4985</td> <td>.4986</td> <td>.4986</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>1</td>	2.9	.4981	.4982	.4982	.4983	.4984	.4984	.4985	.4985	.4986	.4986	0	0	0	0	0	0	0	0	1
3.2 .4993 .4993 .4994 .4994 .4994 .4994 .4995 .4995 .4995 .4995 0	3.0											0	0	0	0	0	0	0	0	0
3.3 .4995 .4995 .4995 .4996 .4996 .4996 .4996 .4996 .4996 .4997 0 0 0 0 0 0 0 0	3.1	.4990	.4991	.4991	.4991	.4992	.4992	.4992	.4992	.4993	.4993	0	0	0	0	0	0	0	0	0
	3.2	.4993	.4993	.4994	.4994	.4994	.4994	.4994	.4995	.4995	.4995	0	0	0	0	0	0	0	0	0
3.4 .4997 .4997 .4997 .4997 .4997 .4997 .4997 .4998 .4998 0 0 0 0 0 0 0 0	3.3	.4995	.4995	.4995	.4996	.4996	.4996	.4996	.4996	.4996	.4997	0	0	0	0	0	0	0	0	0
	3.4	.4997	.4997	.4997	.4997	.4997	.4997	.4997	.4997	.4998	.4998	0	0	0	0	0	0	0	0	0
3.5 .4998 .4998 .4998 .4998 .4998 .4998 .4998 .4998 .4998 .4998 0 0 0 0 0 0 0 0 0 0	3.5	.4998	.4998	.4998	.4998	.4998	.4998	.4998	.4998	.4998	.4998	0	0	0	0	0	0	0	0	0
3.6 .4998 .4998 .4999 .4999 .4999 .4999 .4999 .4999 .4999 0 0 0 0 0 0 0 0	3.6	.4998	.4998	.4999	.4999	.4999	.4999	.4999	.4999	.4999	.4999	0	0	0	0	0	0	0	0	0
3.7 .4999 .4999 .4999 .4999 .4999 .4999 .4999 .4999 .4999 .4999 0 0 0 0 0 0 0 0 0	3.7	.4999	.4999	.4999	.4999	.4999	.4999	.4999	.4999	.4999	.4999	0	0	0	0	0	0	0	0	0
3.8 .4999 .4999 .4999 .4999 .4999 .4999 .5000 .5000 0 0 0 0 0 0 0 0 0	3.8											0	0	0	0	0	0	0	0	0
3.9 .5000 .5000 .5000 .5000 .5000 .5000 .5000 .5000 .5000 .5000 0 0 0 0 0 0 0 0	3.9	.5000	.5000	.5000	.5000	.5000	.5000	.5000	.5000	.5000	.5000	0	0	0	0	0	0	0	0	0

Quadratic Equations

If
$$ax^2 + bx + c = 0$$

then $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$
and $\Delta = b^2 - 4ac$

Logarithms

If
$$y = b^x$$
 then $x = \log_b y$

$$\log_b(xy) = \log_b(x) + \log_b(y)$$

$$\log_b\left(\frac{x}{y}\right) = \log_b(x) - \log_b(y)$$

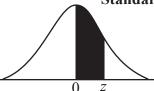
$$\log_b\left(x^n\right) = n\log_b x$$
If $y = e^x$ then $x = \log_e y$ (= ln y)

Calculus

$$\frac{\mathrm{d}}{\mathrm{d}x}\left(x^n\right) = nx^{n-1}$$

If
$$f'(x) = x^n$$
, then $f(x) = \frac{x^{n+1}}{n+1} + c$

Standard Normal Distribution



3

$$\left(z = \frac{x - \mu}{\sigma}\right)$$

Each entry gives the probability that the standardised normal random variable Z lies between 0 and z.

Differences

														Diff	ere	nces	•		
z	0	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
0.0	.0000	.0040	.0080	.0120	.0160	.0199	.0239	.0279	.0319	.0359	4	8	12	16	20	24	28	32	36
0.1				.0517							4		12		20		l	32	
0.2				.0910							4		12		19			31	
0.3				.1293							4		11		19			30	
0.4				.1664							4	-	11		18			29	-
0.5	.1915	.1950	.1985	.2019	.2054	.2088	.2123	.2157	2190	.2224	3	7	10	14	17	21	24	27	31
0.6				.2357							3		10		16			26	
0.7	2580	2612	2642	.2673	2704	2734	2764	2794	2823	2852	3	6	9	12	15	18	21	24	2
0.8				.2967							3	6	8		14	-		22	
0.9				.3238							3	5	8		13			20	
1.0	.3413	.3438	.3461	.3485	.3508	.3531	.3554	.3577	.3599	.3621	2	5	7	9	12	14	16	18	2
1.1	.3643	.3665	.3686	.3708	.3729	.3749	.3770	.3790	.3810	.3830	2	4	6	8	10	12	14	16	1
1.2				.3907							2	4	5	7	9	11	13	15	1
1.3				.4082							2	3	5	6	8	10	11	13	1
1.4				.4236							1	3	4	6	7	8	l	11	
1.5	.4332	.4345	.4357	.4370	.4382	.4394	.4406	.4418	.4429	.4441	1	2	4	5	6	7	8	10	1
1.6	.4452	.4463	.4474	.4484	.4495	.4505	.4515	.4525	.4535	.4545	1	2	3	4	5	6	7	8	
1.7				.4582							1	2	3	3	4	5	6	7	
1.8				.4664							1	1	2	3	4	4	5	6	
1.9				.4732							1	1	2	2	3	4	4	5	
2.0	.4772	.4778	.4783	.4788	.4793	.4798	.4803	.4808	.4812	.4817	0	1	1	2	2	3	3	4	
2.1	.4821	.4826	.4830	.4834	.4838	.4842	.4846	.4850	.4854	.4857	0	1	1	2	2	2	3	3	
2.2	.4861	.4864	.4868	.4871	.4875	.4878	.4881	.4884	.4887	.4890	0	1	1	1	2	2	2	3	
2.3	.4893	.4896	.4898	.4901	.4904	.4906	.4909	.4911	.4913	.4916	0	0	1	1	1	2	2	2	
2.4	.4918	.4920	.4922	.4925	.4927	.4929	.4931	.4932	.4934	.4936	0	0	1	1	1	1	1	2	
2.5	.4938	.4940	.4941	.4943	.4945	.4946	.4948	.4949	.4951	.4952	0	0	0	1	1	1	1	1	
2.6	.4953	.4955	.4956	.4957	.4959	.4960	.4961	.4962	.4963	.4964	0	0	0	0	1	1	1	1	
2.7	.4965	.4966	.4967	.4968	.4969	.4970	.4971	.4972	.4973	.4974	0	0	0	0	0	1	1	1	
2.8	.4974	.4975	.4976	.4977	.4977	.4978	.4979	.4979	.4980	.4981	0	0	0	0	0	0	0	0	
2.9	.4981	.4982	.4982	.4983	.4984	.4984	.4985	.4985	.4986	.4986	0	0	0	0	0	0	0	0	
3.0	.4987	.4987	.4987	.4988	.4988	.4989	.4989	.4989	.4990	.4990	0	0	0	0	0	0	0	0	
3.1	.4990	.4991	.4991	.4991	.4992	.4992	.4992	.4992	.4993	.4993	0	0	0	0	0	0	0	0	
3.2	.4993	.4993	.4994	.4994	.4994	.4994	.4994	.4995	.4995	.4995	0	0	0	0	0	0	0	0	
3.3	.4995	.4995	.4995	.4996	.4996	.4996	.4996	.4996	.4996	.4997	0	0	0	0	0	0	0	0	
3.4	.4997	.4997	.4997	.4997	.4997	.4997	.4997	.4997	.4998	.4998	0	0	0	0	0	0	0	0	
3.5	.4998	.4998	.4998	.4998	.4998	.4998	.4998	.4998	.4998	.4998	0	0	0	0	0	0	0	0	
3.6	.4998	.4998	.4999	.4999	.4999	.4999	.4999	.4999	.4999	.4999	0	0	0	0	0	0	0	0	
3.7	.4999	.4999	.4999	.4999	.4999	.4999	.4999	.4999	.4999	.4999	0	0	0	0	0	0	0	0	
3.8	.4999	.4999	.4999	.4999	.4999	.4999	.4999	.5000	.5000	.5000	0	0	0	0	0	0	0	0	
3.9	.5000	.5000	.5000	.5000	.5000	.5000	.5000	.5000	.5000	.5000	0	0	0	0	0	0	0	0	

L2-MATHMF

English translation of the wording on the front cover

Level 2 Mathematics and Statistics, 2020

9.30 a.m. Thursday 19 November 2020

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