Vianočné gule z papiera — rýchly návod

Jedna guľa má 8 kruhov preložených cez priemer. Vyberte 80 mm alebo 50 mm. Ideálna výška zodpovedá priemeru kruhu, skutočný tvar závisí od materiálu.

Veľká guľa: stranu 2 vytlačte dvakrát. Malá guľa: stranu 3 raz. Netlačte všetky strany na jednu ozdobu.

A4, 100 %, skutočná veľkosť, jedna strana na hárok. Zmerajte kontrolu 100 mm a priemer kruhu. Plný obrys je rez, prerušovaný priemer je ohyb.

1. Vystrihnite 8 rovnakých kruhov. Každý preložte cez stred, farebná strana je vo vnútri. Ohyby zarovnajte k jednej osi.

2. Na vonkajšiu prázdnu polkruhovú plochu naneste tenkú vrstvu vhodného lepidla. Priložte vonkajšiu plochu ďalšieho preloženého kruhu. Farebné vnútro nezlepujte.

3. Pokračujte do balíčka všetkých 8 kruhov. Je to 7 spojov. Nechajte ho spevniť podľa návodu konkrétneho lepidla.

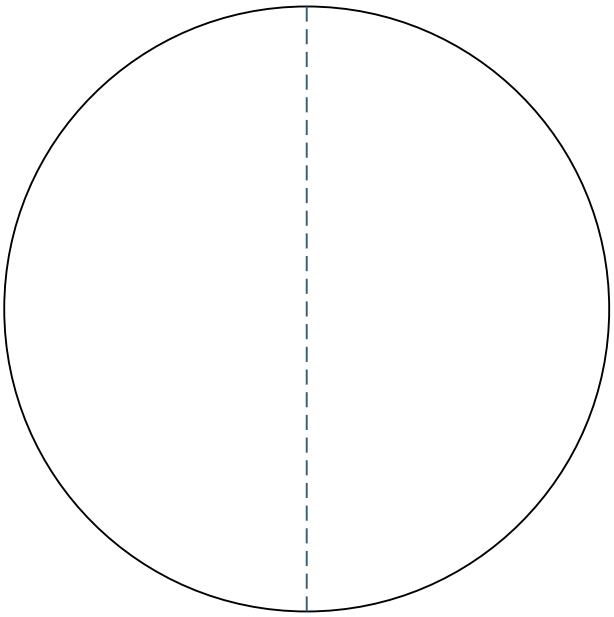
4. Opatrne roztvorte balíček okolo spoločnej osi. Pred uzavretím vyskúšajte posledné dve voľné vonkajšie plochy.

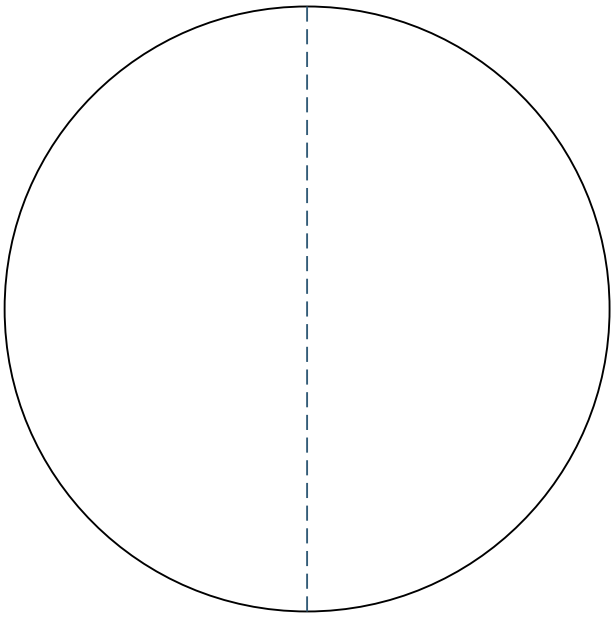
5. Voliteľný papierový pás 80 × 10 mm ohnite do U. Dospelý skúsi umiestnenie koncov pri vrchu posledného spoja; každý koniec sa lepí v dĺžke 10 mm. Os ohybov musí zostať voľná. Držanie overte na vlastnom kuse.

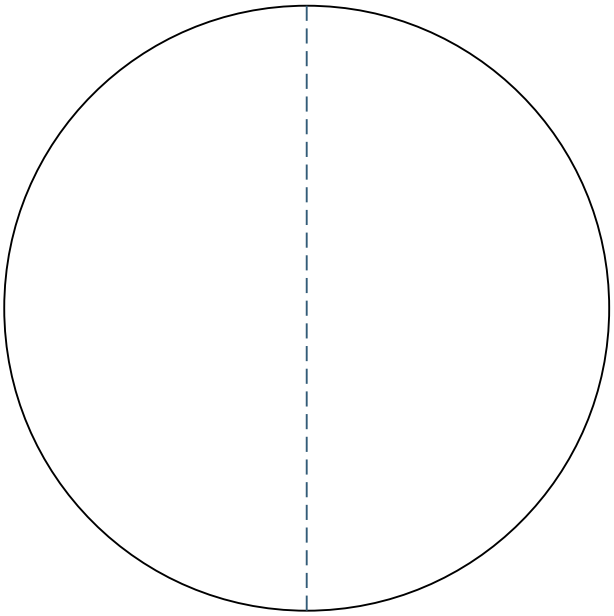
6. Poslednú voľnú plochu zlepte s prvou: ôsmy uzatvárací spoj. Po zaschnutí skontrolujte vlastný tvar a spoje. Záves ani nosnosť nie sú odskúšané.

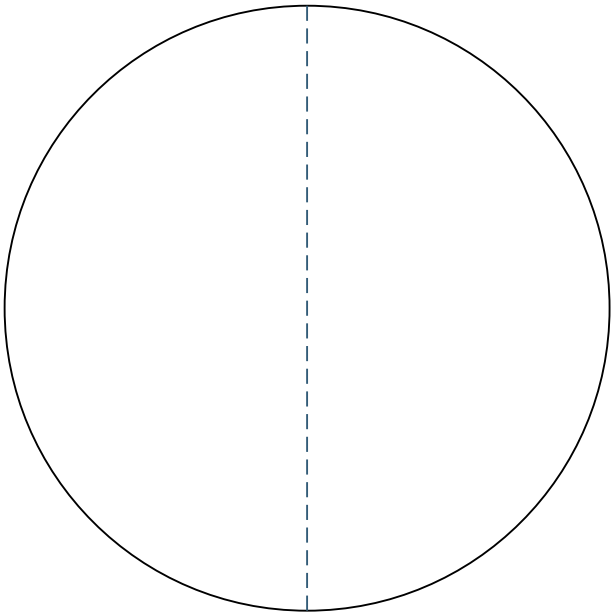
Plochá karta zo strany 4 je druhé použitie. Stačí na ňu jeden kruh 50 mm. Prerušovaný kruh v karte je poloha, nie rez. Dospelý posúdi pomôcky; papier mimo plameňa a tepla.

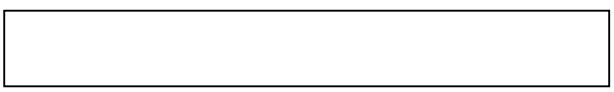
Veľká guľa: 80 mm / túto stranu 2×





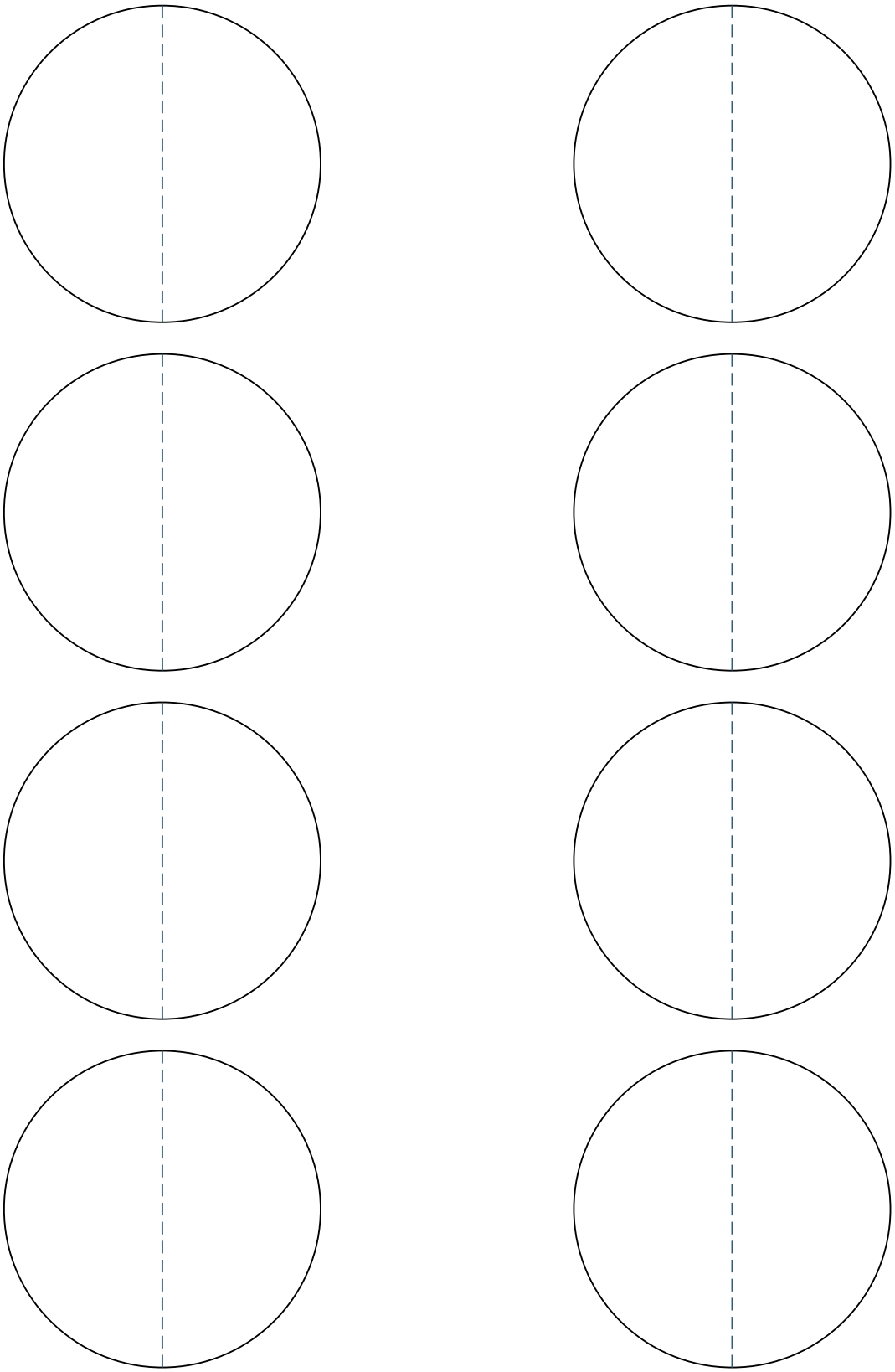






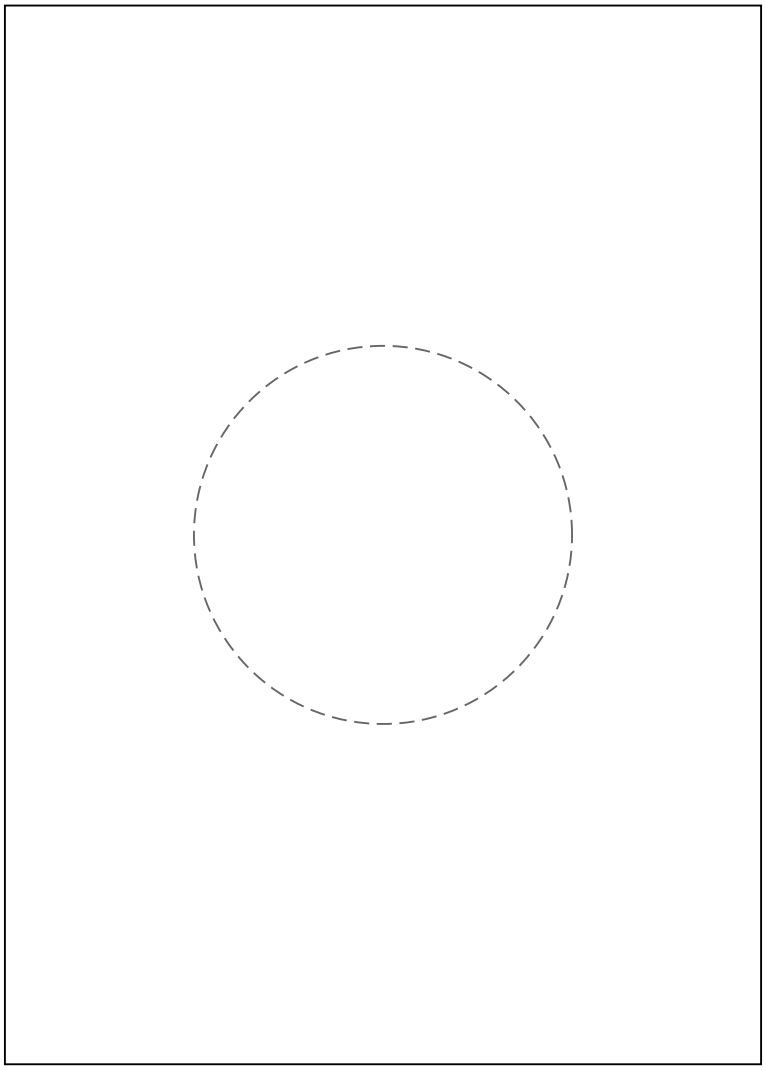
Kontrola 100 mm. Zmerajte vlastný výtlačok.

Malá guľa: 50 mm / túto stranu 1×



Kontrola 100 mm. Zmerajte vlastný výtlačok.

Plochá karta 100 × 140 mm



Prerušovaný kruh = poloha. Nestrihajte ho.

Nalepte jeden kruh 50 mm, záves nakreslite.

Jedna plochá karta, bez skladania alebo 3D gule.

Kontrola 100 mm. Zmerajte vlastný výtlačok.

Montáž: sedem spojov a uzavretie

A. Osem preložených kruhov = osem samostatných dielov. Farebná vnútorná plocha každého dielu zostáva nezlepená.

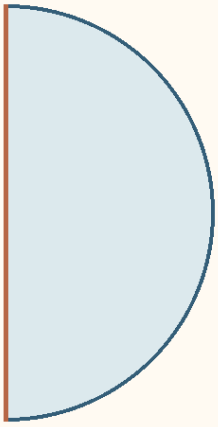
B. Prvý a druhý diel spojte jednou dvojicou vonkajších polkruhových plôch. Voľná vonkajšia plocha druhého prijme tretí diel. Takto vznikne balíček s 7 spojmi.

C. Po spevnení ho otvorte ako knižku okolo spoločnej osi ohybov. Neťahajte za mokré okraje. Posledná a prvá vonkajšia plocha zostávajú voľné.

D. Ôsmym spojom tieto voľné plochy uzavrite. Voliteľný papierový záves vyskúšajte nasucho ešte pred týmto uzavretím. Nevkladajte žiadny záves do ustáleného zlepeného spoja násilím.

Tento list vysvetľuje montáž. Nie je rezacia predloha v mierke. Digitálna kontrola nepotvrdzuje fyzickú pevnosť. Nezväčšujte sériu bez skúšky vlastného kusa.

Kde naniesť lepidlo?



Vonkajšia prázdna polovica

Zlepiť s vonkajšou polovicou
ďalšieho preloženého kruhu.

Farebné vnútro zostáva otvorené.
Spoločné ohyby sú jedna os.
Nelepiť obidve voľné strany naraz.

Pôvodná schéma s pomocou AI.

Pracovný list — ručné poznámky

Papier a lepidlo / skúška na odrezku:

Veľkosť 80 alebo 50 mm / počet ozdôb:

Kontrola výtlačku 100 mm / počet kruhov:

Osem ohybov prechádza cez stred:

Sedem spojov v balíčku / voľné vnútro:

Ôsmy spoj a vyhodnotenie vlastného kusu:

Voliteľný záves posúdil dospelý:

Uloženie / problém / vlastná oprava:

Pôvod, licencia a hranice

Pôvodné kruhové predlohy, karta, pracovný list, texty a schémy: drevenefotografie.sk, 14. 10. 2026, s pomocou AI. Bezplatné osobné, školské a komerčné použitie vrátane úprav, výroby fyzických predmetov a použitia v digitálnych pohľadniciach. Samostatný predaj digitálnych súborov alebo mierne upravených kópií je zakázaný. Cudzie fotografie a písma majú samostatné práva. DejaVu má úplnú samostatnú licenciu v ZIP aj PDF. Geometria kontrolovaná digitálne, nie fyzický test. Pevnosť lepidla, závesu, hotový tvar ani čas výroby nie sú zaručené.

Úplná licencia písma DejaVu nasleduje. Rovnaká licencia je aj v ZIP. Vlastné predlohy nevychádzajú z prevzatých autorských súborov.

DejaVu — full font license

Fonts are (c) Bitstream (see below). DejaVu changes are in public domain.
Glyphs imported from Arev fonts are (c) Tavmjong Bah (see below)

Bitstream Vera Fonts Copyright

Copyright (c) 2003 by Bitstream, Inc. All Rights Reserved. Bitstream Vera is a trademark of Bitstream, Inc.

Permission is hereby granted, free of charge, to any person obtaining a copy of the fonts accompanying this license ("Fonts") and associated documentation files (the "Font Software"), to reproduce and distribute the Font Software, including without limitation the rights to use, copy, merge, publish, distribute, and/or sell copies of the Font Software, and to permit persons to whom the Font Software is furnished to do so, subject to the following conditions:

The above copyright and trademark notices and this permission notice shall be included in all copies of one or more of the Font Software typefaces.

The Font Software may be modified, altered, or added to, and in particular the designs of glyphs or characters in the Fonts may be modified and additional glyphs or characters may be added to the Fonts, only if the fonts are renamed to names not containing either the words "Bitstream" or the word "Vera".

This License becomes null and void to the extent applicable to Fonts or Font Software that has been modified and is distributed under the "Bitstream Vera" names.

The Font Software may be sold as part of a larger software package but no copy of one or more of the Font Software typefaces may be sold by itself.

THE FONT SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OF COPYRIGHT, PATENT, TRADEMARK, OR OTHER RIGHT. IN NO EVENT SHALL BITSTREAM OR THE GNOME FOUNDATION BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, INCLUDING ANY GENERAL, SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF THE USE OR INABILITY TO USE THE FONT SOFTWARE OR FROM OTHER DEALINGS IN THE FONT SOFTWARE.

Except as contained in this notice, the names of Gnome, the Gnome Foundation, and Bitstream Inc., shall not be used in advertising or otherwise to promote the sale, use or other dealings in this Font Software without prior written authorization from the Gnome Foundation or Bitstream Inc., respectively. For further information, contact: fonts at gnome dot org.

Arev Fonts Copyright

Copyright (c) 2006 by Tavmjong Bah. All Rights Reserved.

Permission is hereby granted, free of charge, to any person obtaining a copy of the fonts accompanying this license ("Fonts") and

DejaVu — full font license

associated documentation files (the "Font Software"), to reproduce
and distribute the modifications to the Bitstream Vera Font Software,
including without limitation the rights to use, copy, merge, publish,
distribute, and/or sell copies of the Font Software, and to permit
persons to whom the Font Software is furnished to do so, subject to
the following conditions:

The above copyright and trademark notices and this permission notice
shall be included in all copies of one or more of the Font Software
typefaces.

The Font Software may be modified, altered, or added to, and in
particular the designs of glyphs or characters in the Fonts may be
modified and additional glyphs or characters may be added to the
Fonts, only if the fonts are renamed to names not containing either
the words "Tavmjong Bah" or the word "Arev".

This License becomes null and void to the extent applicable to Fonts
or Font Software that has been modified and is distributed under the
"Tavmjong Bah Arev" names.

The Font Software may be sold as part of a larger software package but
no copy of one or more of the Font Software typefaces may be sold by
itself.

THE FONT SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND,
EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTIES OF
MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT
OF COPYRIGHT, PATENT, TRADEMARK, OR OTHER RIGHT. IN NO EVENT SHALL
TAVMJONG BAH BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY,
INCLUDING ANY GENERAL, SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL
DAMAGES, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING
FROM, OUT OF THE USE OR INABILITY TO USE THE FONT SOFTWARE OR FROM
OTHER DEALINGS IN THE FONT SOFTWARE.

Except as contained in this notice, the name of Tavmjong Bah shall not
be used in advertising or otherwise to promote the sale, use or other
dealings in this Font Software without prior written authorization
from Tavmjong Bah. For further information, contact: tavmjong @ free
. fr.

TeX Gyre DJV Math

Fonts are (c) Bitstream (see below). DejaVu changes are in public domain.

Math extensions done by B. Jackowski, P. Strzelczyk and P. Pianowski
(on behalf of TeX users groups) are in public domain.

Letters imported from Euler Fraktur from AMSfonts are (c) American
Mathematical Society (see below).
Bitstream Vera Fonts Copyright
Copyright (c) 2003 by Bitstream, Inc. All Rights Reserved. Bitstream Vera
is a trademark of Bitstream, Inc.

Permission is hereby granted, free of charge, to any person obtaining a copy
of the fonts accompanying this license (“Fonts”) and associated
documentation
files (the “Font Software”), to reproduce and distribute the Font Software,

including without limitation the rights to use, copy, merge, publish, distribute,
and/or sell copies of the Font Software, and to permit persons to whom the Font Software is furnished to do so, subject to the following conditions:

The above copyright and trademark notices and this permission notice shall be
included in all copies of one or more of the Font Software typefaces.

The Font Software may be modified, altered, or added to, and in particular the designs of glyphs or characters in the Fonts may be modified and additional
glyphs or characters may be added to the Fonts, only if the fonts are renamed
to names not containing either the words “Bitstream” or the word “Vera”.

This License becomes null and void to the extent applicable to Fonts or Font Software
that has been modified and is distributed under the “Bitstream Vera” names.

The Font Software may be sold as part of a larger software package but no copy
of one or more of the Font Software typefaces may be sold by itself.

THE FONT SOFTWARE IS PROVIDED “AS IS”, WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OF COPYRIGHT, PATENT, TRADEMARK, OR OTHER RIGHT. IN NO EVENT SHALL BITSTREAM OR THE GNOME FOUNDATION
BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, INCLUDING ANY GENERAL, SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, WHETHER IN AN ACTION
OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF THE USE OR INABILITY TO USE
THE FONT SOFTWARE OR FROM OTHER DEALINGS IN THE FONT SOFTWARE.
Except as contained in this notice, the names of GNOME, the GNOME Foundation,
and Bitstream Inc., shall not be used in advertising or otherwise to promote the sale, use or other dealings in this Font Software without prior written authorization from the GNOME Foundation or Bitstream Inc., respectively.
For further information, contact: fonts at gnome dot org.

AMSFonts (v. 2.2) copyright

The PostScript Type 1 implementation of the AMSFonts produced by and previously distributed by Blue Sky Research and Y&Y, Inc. are now freely available for general use. This has been accomplished through the cooperation
of a consortium of scientific publishers with Blue Sky Research and Y&Y.
Members of this consortium include:

Elsevier Science IBM Corporation Society for Industrial and Applied Mathematics (SIAM) Springer-Verlag American Mathematical Society (AMS)

In order to assure the authenticity of these fonts, copyright will be held by

DejaVu — full font license

the American Mathematical Society. This is not meant to restrict in any way the legitimate use of the fonts, such as (but not limited to) electronic distribution of documents containing these fonts, inclusion of these fonts into other public domain or commercial font collections or computer applications, use of the outline data to create derivative fonts and/or faces, etc. However, the AMS does require that the AMS copyright notice be removed from any derivative versions of the fonts which have been altered in any way. In addition, to ensure the fidelity of TeX documents using Computer Modern fonts, Professor Donald Knuth, creator of the Computer Modern faces, has requested that any alterations which yield different font metrics be given a different name.

Id