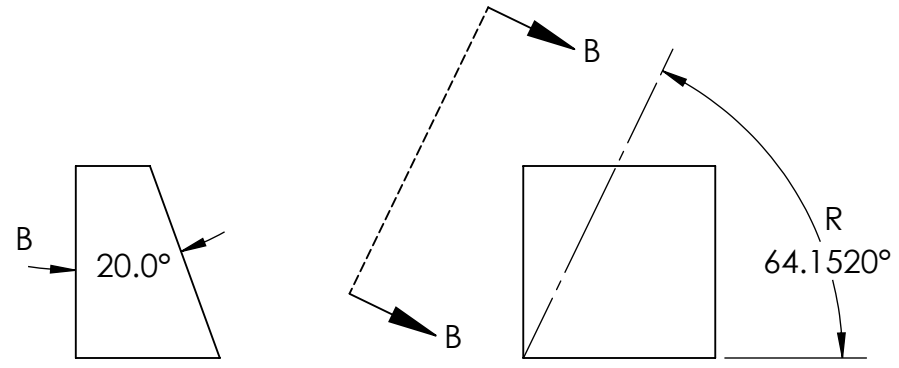
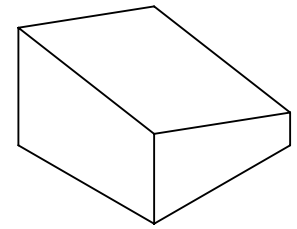


VIEW B-B

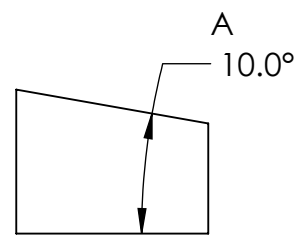


FORMULA:

$$\tan R = \frac{\tan B}{\tan A}$$

$$\tan C = \frac{\tan A}{\cos R}$$

A = 10°
 B = 20°
 R = 64.152°
 C = 22.02°



NOTES:

1. IN THIS EXAMPLE A MAGNETIC COMPOUND SINE PLATE WOULD BE INCLINED TO AN ANGLE OF 10° AND THE BASE ROTATED TO A 64.152° ANGLE (OR COMPLEMENT). IT WOULD THEN BE INCLINED TO THE 22.02° ANGLE.
2. SEE SHEET 2 FOR FORMULA DERIVATION.

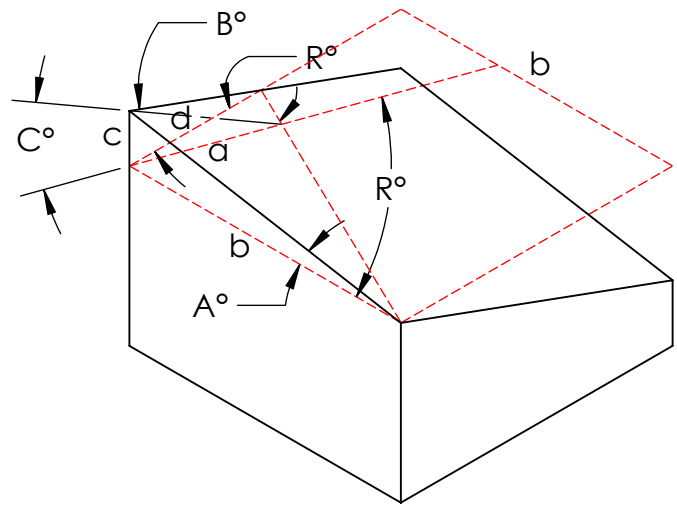
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
 TOLERANCES FOR BOTH SYSTEMS ARE:
ENGLISH:
 FRACTIONS: ± 1/32
 DECIMALS: .XX ± .01
 .XXX ± .002
 .XXXX ± .0002
METRIC:
 DECIMALS: X.X ± 0.1
 X.XX ± 0.01
ALL ANGLES:
 X ± .1°
 .XX ± .05°

Raystown Precision Tool
 1822 Washington Street
 Huntingdon, PA 16652

MATERIAL: **XXXXXX**
 FINISH: $\sqrt{32}$
 DRAWN BY: NWE
 DATE: XX/XX/2015
 APPROVED: _____
 DO NOT SCALE DRAWING

**DOUBLE DESCENDING,
 COMPOUND ANGLE**
 SIZE: **A** DWG. NO.: **RPT2005** REV. **A**
 SCALE: XX FILE: SHEET 1 OF 2

| A | | Initial Release | NWE | 4/15/15 | | |
|---|-------|-----------------|--------------------|---------|----------|---------|
| PART # | REV # | ECN | CHANGE DESCRIPTION | REV. BY | ECN DATE | CHECKED |
| THE INFORMATION CONTAINED IN THIS DRAWING IS PROPRIETARY AND THE SOLE PROPERTY OF RAYSTOWN PRECISION TOOL. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF RAYSTOWN PRECISION TOOL IS PROHIBITED. | | | | | | |



DERIVING THE FORMULA:

$$\text{TAN } C^\circ = \frac{\text{TAN } A}{\text{COS } R}$$

$$\text{TAN } A = c/b$$

$$\text{TAN } B = c/d$$

$$\text{TAN } R = b/d = \frac{c/\text{TAN } A}{c/\text{TAN } B} =$$

$$\text{TAN } R = \frac{\text{TAN } B}{\text{TAN } A}$$

$$\text{COS } R = a/b$$

$$\text{TAN } C = c/a = \frac{b * \text{TAN } A}{b * \text{COS } R} = \frac{\text{TAN } A}{\text{COS } R}$$

1. Sketch a plane parallel to base and located on the vertex of angle A or B, as shown by red construction lines. Draw lines defining angle R and angle C.
2. Label each line segment appropriately.
3. Common sides must be used to solve to find angle R and angle C.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES FOR BOTH SYSTEMS ARE:

| ENGLISH: | | METRIC: | | ALL ANGLES |
|-----------|---------------|-------------|------------|------------|
| FRACTIONS | DECIMALS | DECIMALS | DECIMALS | |
| ± 1/32 | .XX ± .01 | XX ± 0.1 | X ± .1° | |
| | .XXX ± .002 | X.XX ± 0.01 | .XX ± .05° | |
| | .XXXX ± .0002 | | | |

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**DOUBLE DESCENDING,
COMPOUND ANGLE**

| A | | | Initial Release | NWE | 4/15/15 | |
|--------|-------|-----|--------------------|---------|----------|---------|
| PART # | REV # | ECN | CHANGE DESCRIPTION | REV. BY | ECN DATE | CHECKED |

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| | |
|----------------------|------------|
| MATERIAL | XXXXXX |
| FINISH | √ 32 |
| DRAWN BY | NWE |
| DATE | XX/XX/2015 |
| APPROVED | DATE |
| DO NOT SCALE DRAWING | |

| | | |
|-----------|----------|--------------|
| SIZE | DWG. NO. | REV. |
| A | RPT2005 | A |
| SCALE: XX | FILE: | SHEET 2 OF 2 |