Question block created by wizard

1. According to the basic rules, what would be the first step to do in: (2+4) · 3/6-5=

o (a) 3/6=
o (b) 4 · 3=

• (c) (2+4)=

If choice c is selected set score to 1.

2. According to the basic rules, what would be the first step to do in: 2+8/4·3-5=

o (a) 2+8=

• (b) 8/4=

o (c) 4·3=

If choice b is selected set score to 1.

3. According to the basic rules, what would be the first step to do in: 12+4·(3/6)-5=

o (a) 4·3=
o (b) 12+4=

• (c) 3/6=

If choice c is selected set score to 1.

4. Which statement is correct:

o (a) 3/4 = 1,33

• (b) 3/4 = 0,75

o (c) 3/4 = 0,25

If choice b is selected set score to 1.

5. Which statement is correct?

o (a) 5/8 = 0,125

• (b) 5/8 = 0,625

o (c) 5/8 = 0,0625

If choice b is selected set score to 1.

6. Which statement is correct?

o (a) 0,32 = 2/5

• (b) 0,4 = 2/5

o (c) 2,5 = 2/5

If choice b is selected set score to 1.

7. Exercise: 128 ·173 = 9344

• (a) This exercise is called a multiplication; 9344 is called the product.

o (b) This exercise is called a division; 9344 is called the quotient.
o (c) This exercise is called a multiplication; 9344 is called the quotient.

If choice a is selected set score to 1.

8. Exercise: 68182 / 73 = 934

o (a) This exercise is called a multiplication; 934 is called the product.

• (b) This exercise is called a division; 934 is called the quotient.

o (c) This exercise is called a division; 934 is called the product.

If choice b is selected set score to 1.

9. Exercise: 25 /3400\ 136

• (a) 25 is called the divisor; 3400 is called the dividend.

o (b) 25 is called the dividend; 3400 is called the divisor.
o (c) 25 is called the quotient; 3400 is called the dividend.

If choice a is selected set score to 1.

10. 3·4 =12 Which statement is correct?

o (a) 3 is called the multiplicant; 4 the multiplier and 12 the product.

- (b) 3 is called the multiplier; 4 the multiplicant and 12 the product.

o (c) 3 is called the subtrahend; 4 the multiplier and 12 the multiplicant.

If choice b is selected set score to 1.

11. 16/8=2. Which statement is correct?

o (a) 16 is called the quotient; 8 the divisor and 2 the dividend.

- (b) 16 is called the dividend; 8 the divisor and 2 the quotient.

o (c) 16 is called the divisor; 8 the dividend and 2 the quotient.

If choice b is selected set score to 1.

12. 7-5=2. Which statement is correct?

- (a) 7 is called the minued; 5 is called the subtrahend; 2 is called the difference.

o (b) 7 is called the subtrahend; 5 is called the difference; 2 is called the minuend.
o (c) 7 is called the difference; 5 is called the minuend; 2 is called the subtrahend.

If choice a is selected set score to 1.

13. 28-9=19

Which statement is correct?

- (a) 28 is called the minuend; 9 is called the subtrahend and 19 is called the difference.

o (b) 28 is called the difference; 9 is called the minuend and 19 is called the subtrahend.
o (c) 28 is called the subtrahend; 9 is called the difference and 19 is called the minuend.

If choice a is selected set score to 1.

14. 15-7=8

Which statement is correct?

o (a) 15 is called the subtrahend; 7 is called the difference and 8 is called the minuend.

- (b) 15 is called the minuend; 7 is called the subtrahend and 8 is called the difference.

o (c) 15 is called the difference; 7 is called the minuend and 8 is called the subtrahend.

If choice b is selected set score to 1.

15. Workingshoes have a price of € 150,-. You get 30% reduction. How much are the shoes cheaper now?

o (a) € 20,00

• (b) € 45,00

o (c) € 5,00

If choice b is selected set score to 1.

16. Calculate: 5 inch = ...cm.

o (a) 0,508 cm
o (b) 12,25 cm

• (c) 12,7 cm

If choice c is selected set score to 1.

17. The average of the numbers: 6,8,2,5 and 4 is?

• (a) 5

o (b) 4,6
o (c) 6,25

If choice a is selected set score to 1.

18. Which equation do you use to calculate the area of a circle?

• (a) $A= \pi \cdot r^2$

o (b) $A=\frac{1}{2} \cdot b \cdot h$
o (c) $A= l \cdot w$

If choice a is selected set score to 1.

19. Which equation do you use to calculate the area of a cylinder?

• (a) $A = \pi \cdot r^2 \cdot h$

o (b) $A = \frac{4}{3} \cdot \pi \cdot r^3$
o (c) $A = \frac{1}{3} \cdot \pi \cdot r^2 \cdot h$

If choice a is selected set score to 1.

20. Which equation do you use to calculate the area of a triangle?

- o (a) $A = \pi \cdot r^2$
- • (b) $A = ½ \cdot b \cdot h$
- o (c) $A = l \cdot w$

If choice b is selected set score to 1.

21. $\sqrt{(64)} =$

- • (a) 8
- o (b) 32
- o (c) 4

If choice a is selected set score to 1.

22. $\sqrt{(144)} =$

- • (a) 12
- o (b) 36
- o (c) 72

If choice a is selected set score to 1.

23. $\sqrt[3]{(27)} =$

- o (a) 9
- • (b) 3
- o (c) 5,2

If choice b is selected set score to 1.

24. $2^3 =$

- • (a) 8
- o (b) 6
- o (c) 9

If choice a is selected set score to 1.

25. 3^3 =

- o (a) 9
- • (b) 27
- o (c) 6

If choice b is selected set score to 1.

26. 5^3 =

- o (a) 15
- • (b) 125
- o (c) 243

If choice b is selected set score to 1.

27. According to the basic rules, calculate: (2 + 4) · 3 : 6 - 5 =

- o (a) 18
- • (b) -2
- o (c) -1

If choice b is selected set score to 1.

28. According to the basic rules, calculate: 2+8:4·3-5 =

- • (a) 3
- o (b) 2,5
- o (c) -2

If choice a is selected set score to 1.

29. According to the basic rules, calculate: 12+4·(3:6)-5 =

- o (a) 24
- o (b) 13

- (c) 9

If choice c is selected set score to 1.

30. Which statement in correct? 3 divided by 4 is..

o (a) 1,33
o (b) 0,25

- (c) 0,75

If choice c is selected set score to 1.

31. Which statement is correct? 5 divided by 8 is..

- (a) 0,625

o (b) 0,0625
o (c) 0,125

If choice a is selected set score to 1.

32. Which statement is correct? 0,32 =

o (a) 2 1/2

- (b) 8/25

o (c) 2/5

If choice b is selected set score to 1.

33. Calculate: 128 · 173 =

o (a) 9344
o (b) 3460

- (c) 22144

If choice c is selected set score to 1.

34. Calculate: 68182 : 73 =

- (a) 934

o (b) 9340

o (c) 0,934

If choice a is selected set score to 1.

35. Calculate: 25/3400 =

- (a) 0,007

o (b) 13,6
o (c) 136

If choice a is selected set score to 1.

36. Calculate: $^{2}/_{4} \cdot {}^{1}/_{4}$ =

- (a) $^{1}/_{8}$

o (b) $^{1}/_{2}$
o (c) 2

If choice a is selected set score to 1.

37. Calculate $^{3}/_{8} : {}^{1}/_{5}$

o (a) $^{3}/_{40}$

- (b) $1^{7}/_{8}$

o (c) $^{8}/_{15}$

If choice b is selected set score to 1.

38. Calculate: $^{7}/_{9} + {}^{5}/_{6}$ =

- (a) $1^{11}/_{18}$

o (b) $^{14}/_{15}$
o (c) $1^{44}/_{45}$

If choice a is selected set score to 1.

39. Workshoes have a price of € 250. You get 30% reduction. What do you need to pay now for the pair of shoes?

- (a) € 175,00

o (b) € 220,00
o (c) € 75,00

If choice a is selected set score to 1.

40. Calculate: 3 inch = ... dm

- (a) 0,762

o (b) 0,0762
o (c) 7,62

If choice a is selected set score to 1.

41. What is the average of the numbers: 6, 8, 2, 5, 7, 3, 4.

- (a) 5

o (b) 7
o (c) 6

If choice a is selected set score to 1.

42. Workshoes have a price of € 250,00. You get 20% reduction.

What do you need to pay now for this shoes?

o (a) € 225,00

- (b) € 200,00

o (c) € 230,00

If choice b is selected set score to 1.

43. Workshoes have a price of € 300,00. You get 15% reduction.

What do you need to pay now for this shoes?

- (a) € 255,00

o (b) € 270,00
o (c) € 285,00

If choice a is selected set score to 1.

44. 3,5 inch = ... cm

- (a) 8,9

o (b) 1,16
o (c) 1,38

If choice a is selected set score to 1.

45. 11,43 cm = ... inch

o (a) 29,8
o (b) 34,3

- (c) 4,5

If choice c is selected set score to 1.

46. Calculate the average of the numbers: 60, 80, 20, 50, 70, 30, 40.

o (a) 60
o (b) 55

- (c) 50

If choice c is selected set score to 1.

47. Calculate the average of the numbers: 65, 85, 15, 50, 75, 25, 35.

o (a) 55
o (b) 35

- (c) 50

If choice c is selected set score to 1.

48. The area of a triangle with a height of 3 cm and a base of 4 cm is .....

o (a) 12 cm^2
o (b) 24 cm^2

- (c) 6 cm^2

If choice c is selected set score to 1.

49. The area of a circle with a radius of 5 cm is.. (π =3,14)

- (a) 78,5 cm²

o (b) 15,7 cm²
o (c) 7,96 cm²

If choice a is selected set score to 1.

50. The area of a cilinder with a radius of 4 cm and a height of 5 cm is.... (π = 3,14)

- (a) 251,2 cm²

o (b) 314 cm²
o (c) 19,63 cm²

If choice a is selected set score to 1.

51. √(64) =

o (a) 2

- (b) 8

o (c) 10

If choice b is selected set score to 1.

52. ^{2} √(81) =

o (a) 8

- (b) 9

o (c) 3

If choice b is selected set score to 1.

53. ^{3}√216 =

- (a) 6

o (b) 8
o (c) 4

If choice a is selected set score to 1.

54. 7^2 =

- (a) 49

o (b) 14
o (c) 3,5

If choice a is selected set score to 1.

55. 8^3 =

o (a) 64

- (b) 512

o (c) 24

If choice b is selected set score to 1.

56. 4^3 =

o (a) 12

- (b) 64

o (c) 16

If choice b is selected set score to 1.

57. Verify and choose the correct answer for: 6p · 3p =

o (a) 6+3 · p·p = 9 · p^2 = $9p^2$

- (b) 6·3 · p·p = 18 · p^2 = $18p^2$

o (c) 6·3 · p = 18 · p = 18p

If choice b is selected set score to 1.

58. Calculate: -8a x -3a =

o (a) 24a
o (b) 11a

- (c) $24a^2$

If choice c is selected set score to 1.

59. Verify and choose the correct answer for, 12ab/(4a) =

- (a) 12/4 · ab/a = 3 · b = 3b

o (b) 12·4 · a·a · b = 48 · a^2 · b = 48a^2b
o (c) 12-4 · ab/a = 8 · b = 8b

If choice a is selected set score to 1.

60. Convert: 2a + 12b + 20a - 10b =

o (a) 2+12+20-10 · a+b =24a+b
o (b) 2a+20a +12b-10b = 22a-2

- (c) 2a+20a + 12b+ (-10b) = 22A + 2b

If choice c is selected set score to 1.

61. Convert: 2p-3p+5q+4q=

- (a) 9q - p

o (b) 8p + q
o (c) 5p - 9q

If choice a is selected set score to 1.

62. Convert: -x+3y+11x-8y=

o (a) 12x+11y
o (b) 5x-y

- (c) 10x-5y

If choice c is selected set score to 1.

63. Calculate, $^{3a}/_{7}$ + $^{2a}/_{7}$ =

o (a) $^{5a}/_{14}$
o (b) $^{6a}/_{7}$

- (c) $^{5a}/_{7}$

If choice c is selected set score to 1.

64. Calculate, $^{5}/_{p} - {}^{p}/_{2}$ =

- o (a) 5-2+p-p = 3
- o (b) 5-2 / p+p = 3/2p
- • (c) (5·2-p·p) / (p+p) = (10-p²) / 2p

If choice c is selected set score to 1.

65. Calculate, $^{a}/_{b} \cdot {}^{a}/_{5}$

- o (a) 2a / 5b
- o (b) 5a / ab = 5 / b
- • (c) a² / 5b

If choice c is selected set score to 1.

66. Convert: -9(-2x-3y)=

- • (a) 18x + 27y
- o (b) 45x + y
- o (c) 18x - 27y

If choice a is selected set score to 1.

67. Convert: (-3x+2y) ·-2=

- o (a) 2x - y
- o (b) 6x +4y
- • (c) 6x - 4y

If choice c is selected set score to 1.

68. Convert: 3(12a-9) =

- • (a) 36a - 27
- o (b) 36a - 9
- o (c) 9a

If choice a is selected set score to 1.

69. a + a + b - c =

- (a) 2a+b-c

o (b) 2a-b+c
o (c) a^2+b-c

If choice a is selected set score to 1.

70. Calculate: 2x·3y + 5x·4y =

o (a) 7x+7y
o (b) $26x^2y^2$

- (c) 26xy

If choice c is selected set score to 1.

71. Calculate: 2x · 3y -5x · 4y

- (a) -14xy

o (b) -120xy
o (c) -14

If choice a is selected set score to 1.

72. Calculate a-a-b+c =

o (a) -2a-b+c

- (b) -b + c

o (c) b + c

If choice b is selected set score to 1.

73. Calculate: $^2/_a + {}^3/_b$ =

o (a) 5 /(a+b)

- (b) (3a+2b) / (ab)

o (c) (3a+2b) / (a+b)

If choice b is selected set score to 1.

74. Calculate: ab / d + d / c =

- o (a) ab + d
- • (b) (abc+d^2) / (cd)
- o (c) ab + 1 / c

If choice b is selected set score to 1.

75. Calculate: 2/a - 3/b

- o (a) (-3a+2b) / (a+b)
- • (b) (-3a+2b) / ab
- o (c) (3a-2b) / ab

If choice b is selected set score to 1.

76. Calculate: ab / b · a / c =

- o (a) c
- o (b) 1/c
- • (c) a^2 /c

If choice c is selected set score to 1.

77. Calculate: $\frac{12x}{y} : \frac{-6y}{x} =$

- o (a) -y^2 /2x^2
- • (b) -2x^2 / y^2
- o (c) -2

If choice b is selected set score to 1.

78. Calculate: 3x / 4y + 5x / y

- o (a) 8x / 4y^2

- (b) 8x / 4y

- (c) 23x / 4y

If choice c is selected set score to 1.

79. Calculate: 12x / y - (-6y / x) =

- (a) (12x + 6y) / (xy)

- (b) $(12x^2 + 6y^2) / (xy)$

- (c) $(12x^2 - 6y^2) / (xy)$

If choice b is selected set score to 1.

80. Calculate: 3x / 4y - 5x / y =

- (a) $-2x / (4y^2)$
- (b) 1/4 (x-20) / y

- (c) $(3xy - 20xy) / 4y^2$

If choice c is selected set score to 1.

81. Calculate: 3(a+b) =

- (a) 3a+b
- (b) 3b+a

- (c) 3a + 3b

If choice c is selected set score to 1.

82. Calculate: -3(a+b) =

- (a) -3a+3b

- (b) -3a-3b

- (c) 3a-3b

If choice b is selected set score to 1.

83. Calculate: -3(a-b)

- o (a) -3a-3b
- o (b) -3a+b
- • (c) -3a+3b

If choice c is selected set score to 1.

84. Calculate: (a+b) · (a+b) =

- o (a) $a^2 + b^2$
- o (b) $2ab + b^2$
- • (c) $a^2 + 2ab + b^2$

If choice c is selected set score to 1.

85. Calculate: (a+b) · (a-b) =

- • (a) a^2-b^2
- o (b) $a^2 - 2ab - b^2$
- o (c) $2ab-b^2$

If choice a is selected set score to 1.

86. Calculate: (a-b) · (a-b) =

- o (a) $a^2 - 2ab - b^2$
- o (b) $a^2 + b^2$
- • (c) $a^2 - 2ab + b^2$

If choice c is selected set score to 1.

87. Calculate $^1/_3\,a + {}^1/_4\,a =$

- • (a) $^7/_{12}\,a$
- o (b) $^1/_{12}\,a$
- o (c) $^1/_3\,a$

If choice a is selected set score to 1.

88. Calculate: $^1/_3$ a - $^1/_4$ a =

- o (a) $-^7/_{12}$ a
- o (b) $-^1/_4$ a
- • (c) $^1/_{12}$ a

If choice c is selected set score to 1.

89. Calculate: $^1/_3$ a · $^1/_4$ a =

- o (a) $-^7/_{12}$ a^2
- o (b) $^7/_{12}$ a^2
- • (c) $^1/_{12}$ a^2

If choice c is selected set score to 1.

90. Calculate $^1/_6$ a : $^1/_3$ a =

- o (a) $^1/_2$ a
- o (b) $^1/_{18}$ a
- • (c) $^1/_2$

If choice c is selected set score to 1.

91. Calculate: $^1/_6$a : $^1/_3$b =

- o (a) $^1/_{18}$ ab
- o (b) $^{ab}/_{18}$
- • (c) ^{a} $/_{2b}$

If choice c is selected set score to 1.

92. Calculate: $^1/_6$ a • $^1/_3$ b =

- o (a) 18ab
- o (b) $^1/_{18}$ · ab
- • (c) 1 / (18ab)

If choice c is selected set score to 1.

93. When solving linear equations, the first step to do is ..... (if available)

- o (a) rearrange both sides.
- • (b) eliminate the brackets.
- o (c) Transfer from right hand side to left hand side and vice versa, make sure that only the variable on the left side remains.

If choice b is selected set score to 1.

94. Rearrange according to the rules of linear equations: 5x -5 = -2x + 3x + 15

- o (a) 6x = 20
- o (b) 6x = 10
- • (c) 4x = 20

If choice c is selected set score to 1.

95. Solving linear equations, the second step to do is ..... (if available)

- • (a) transfer from right hand side to left hand side and vice versa, make sure that only the variable on the left side remains.
- o (b) rearrange both sides.
- o (c) eliminate the brackets.

If choice a is selected set score to 1.

96. Solve according to the rules of linear equations: 5(3k-7)+7 = 7(2k-4)

- • (a) k = 0
- o (b) 15k - 35 = 14k - 28
- o (c) 29k = -56

If choice a is selected set score to 1.

97. Solve according to the rules of linear equations: 4(2d - 8) = 3(4d - 16)

- o (a) d = -4
- o (b) d = 2
- • (c) d = 4

If choice c is selected set score to 1.

98. Rearrange according to the rules of linear equations:3x - 25+ (6x/3) = 5x(4+9)

- o (a) x = (-25/186)
- o (b) 186x = -25
- • (c) -60x = 25

If choice c is selected set score to 1.

99. $4^{1/2}$ =

- • (a) √4
- o (b) $^{2}\sqrt{2}$
- o (c) 4 · 0,5

If choice a is selected set score to 1.

100. $^{3}\sqrt{8}$ =

- • (a) 2
- o (b) 8 : $^{1}/_{3}$ = 24
- o (c) 8 : 3 = $2^{2}/_{3}$

If choice a is selected set score to 1.

101. 2^{-3}=

- o (a) 1/4
- • (b) 1/8
- o (c) 8

If choice b is selected set score to 1.

102. $17_{(10)}$ = ...$_{(8)}$

- o (a) 17
- • (b) 21
- o (c) 20

If choice b is selected set score to 1.

103. $10011_{(2)}$ =.....$_{(10)}$

- o (a) 20
- o (b) 18
- • (c) 19

If choice c is selected set score to 1.

104. $26_{(10)}$ = ... $_{(2)}$

- o (a) 01010
- • (b) 11010
- o (c) 11011

If choice b is selected set score to 1.

105. Solve: $x^2 - 2x = 8$

- • (a) x = 4 or x = -2
- o (b) x = -4 or x = 2
- o (c) x = 4 or x = 2

If choice a is selected set score to 1.

106. Solve: $x^2 -5x -14 = 0$

- o (a) x = -7 or x = 2
- • (b) x = 7 or x = -2
- o (c) x = 7 or x = 2

If choice b is selected set score to 1.

107. Solve:

$$\begin{cases} x+2y=6 \\ 2x-2y=12 \end{cases}$$

- (a) x = 0 and y = 6
- (b) 4x - 2y = 24

- (c) x = 6 and y = 0

If choice c is selected set score to 1.

108. We can write: $b^x = y$ as.....

- (a) $^y\log(b) = x$
- (b) $^x\log(b) = y$

- (c) $^b\log(y) = x$

If choice c is selected set score to 1.

109. We can write: log(AB) =

- (a) log(A) - log(B)
- (b) log(A) x log(B)

- (c) log(A) + log(B)

If choice c is selected set score to 1.

110. Solve: $^2\log16 = x$

- (a) x = 8

- (b) x = 4

- (c) x = 3

If choice b is selected set score to 1.

111. The sinus of an angle is:

- (a) adjacent divided by the hypotenus.

- (b) opposite divided by the hypotenus.

o (c) adjacent divided by the opposite.

If choice b is selected set score to 1.

112. The cosin of an angle is:

- (a) adjacent divided by the hypotenus.

o (b) opposite divided by the hypotenus.
o (c) adjacent divided by the opposite.

If choice a is selected set score to 1.

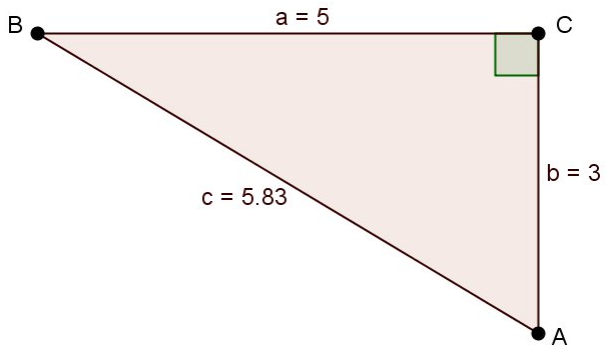
113. The tangent of an angle is:

- (a) opposite divided by the adjacent.

o (b) opposite divided by the hypotenus.
o (c) adjacent divided by the hypotenus.

If choice a is selected set score to 1.

114. The tangent of angle A is?



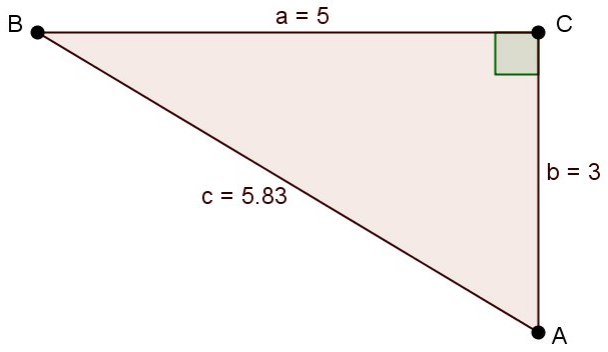
o (a) $^{3}/_{5}$

- (b) $1^{2}/_{3}$

o (c) $1^{47}/_{50}$

If choice b is selected set score to 1.

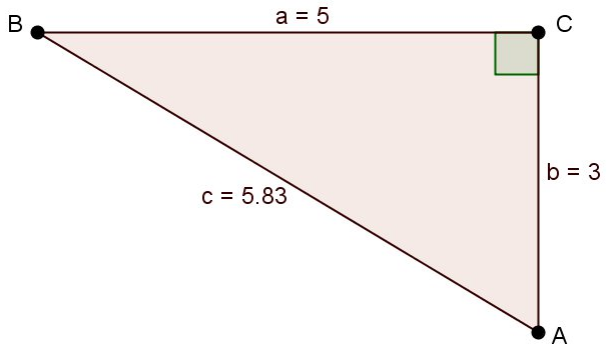
115. The tangent of angle B is:



- o (a) $1^{47}/_{50}$
- • (b) $^{3}/_{5}$
- o (c) $1^{2}/_{3}$

If choice b is selected set score to 1.

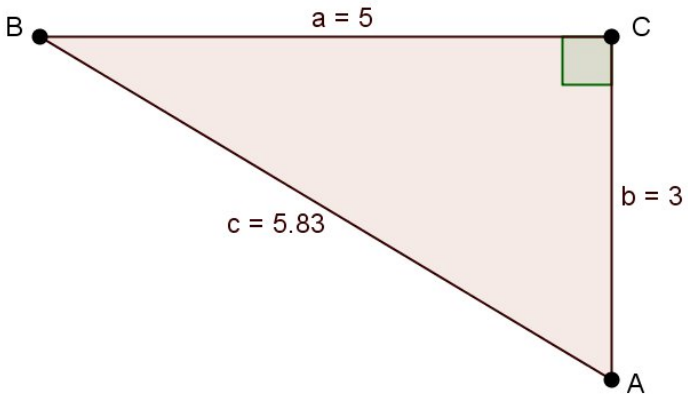
116. The cosin of angle C is?



- o (a) $^{3}/_{5}$
- o (b) 1
- • (c) 0

If choice c is selected set score to 1.

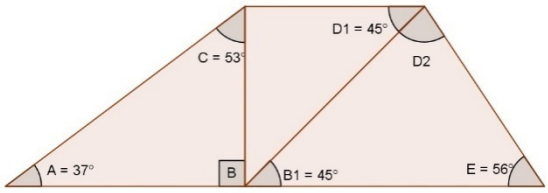
117. The sine of angle A is?



- o (a) 583 / 500
- • (b) 500 / 583
- o (c) 300 / 583

If choice b is selected set score to 1.

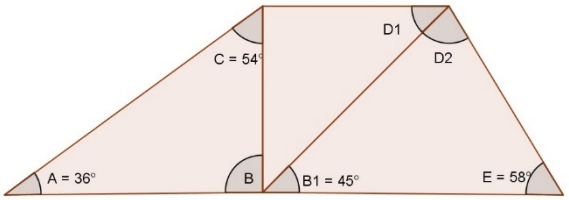
118. Determine the magnitude of angle D2 ?



- • (a) 79^{o}
- o (b) 80^{o}
- o (c) 81^{o}

If choice a is selected set score to 1.

119. Determine the sum of the angles D1 + D2 ?

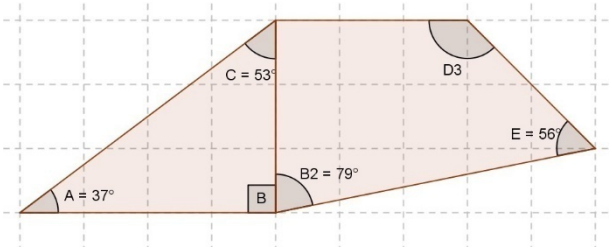


- o (a) 121°
- o (b) 120°

- • (c) 122°

If choice c is selected set score to 1.

120. Determine the magnitude of angle D3 ?



- • (a) 135°

- o (b) 90°
- o (c) -45°

If choice a is selected set score to 1.

121. Equation: y = 2x+3

- • (a) The number 2 represents the slope of the graph.

- o (b) The number 2 represents the point of the intersection with the y-axis.
- o (c) The number 2 represents the point of the intersection with the x-axis.

If choice a is selected set score to 1.

122. Equation: y = -2x-5

- o (a) The number -5 represents the slope of the graph.

- • (b) The number -5 represents the point of the intersection with the y-axis.

- (c) The number -5 represents the point of the intersection with the x-axis.

If choice b is selected set score to 1.

123. Equation: y = 0,5x-1

- (a) The equation represents a horizontal straight line.

- (b) The equation represents a sloping line.

- (c) The equation represents a vertical straight line.

If choice b is selected set score to 1.

124. Equation: $y = x^2+3x-4$.

- (a) The equation represents a parabola that opens downward.
- (b) The equation represents a straight line.

- (c) The equation represents a parabola.

If choice c is selected set score to 1.

125. Equation : $y = -x^2+3x-4$. If x = 5.

- (a) The equation represents the parabola that opens downward.

- (b) The equation represents a straight line through the point (5,-14).
- (c) The equation represents the parabola that opens upward.

If choice a is selected set score to 1.

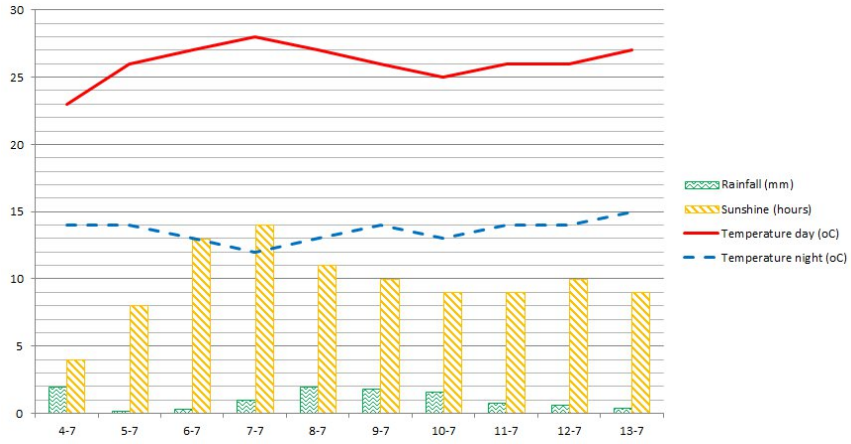
126. Equation: $y = -x^2+3x-4$ If x = 3. Calculate the y-value and give the point obtained.

- (a) y = 24 -> point (3,24)
- (b) y = 0 -> point (3,0)

- (c) y = 14 -> point (3,14)

If choice c is selected set score to 1.

127. Get the lowest night temperature in the graph.

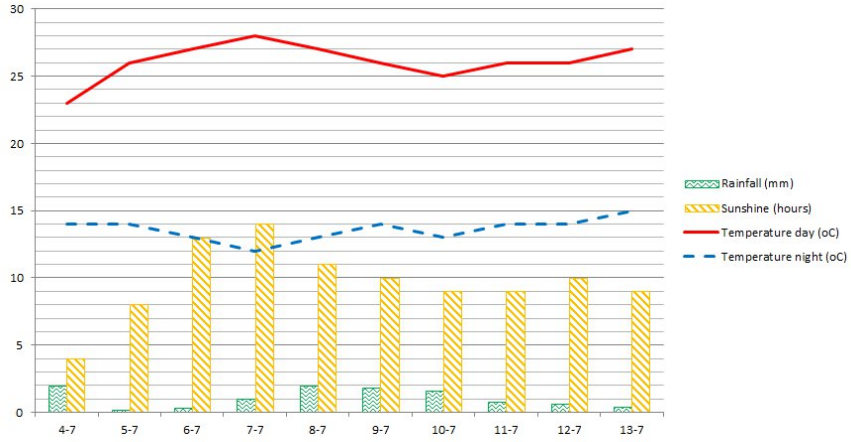


- (a) 12 degrees celsius

o (b) 14 degrees celsius
o (c) 15 degrees celsius

If choice a is selected set score to 1.

128. How much rain has fallen on the 7th and 8th of July combined?



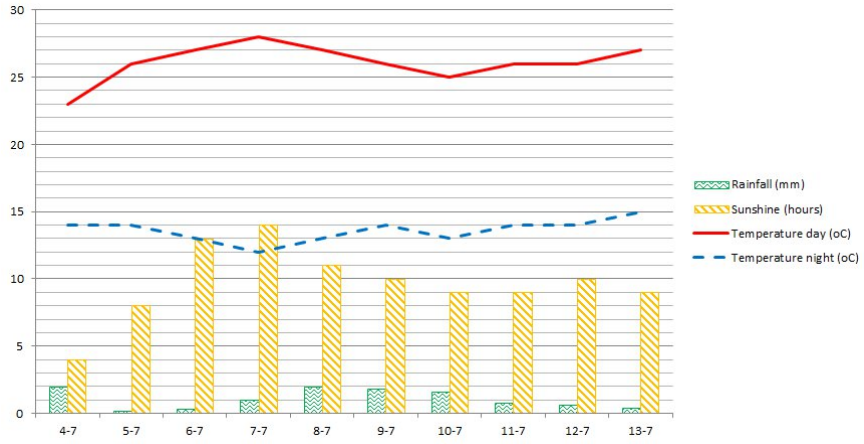
o (a) 2 mm

- (b) 3 mm

o (c) 1 mm

If choice b is selected set score to 1.

129. Calculate the average sunshine hours from the fourth till the eight days of July.



- o (a) 8 hours
- o (b) 9 hours
- • (c) 10 hours

If choice c is selected set score to 1.

130. Calculate the slope of the straight line (y=ax+b) that passes through the points (2,3) and (5,9).

- o (a) a = 0,5
- • (b) a = 2
- o (c) a = -2/6

If choice b is selected set score to 1.

131. Determine the point of intersection with the y-axis of the straight line (y=ax+b) that passes through the points (-2,3) and (-5,9).

- • (a) y = -1
- o (b) y = -0,5
- o (c) y = -8/11

If choice a is selected set score to 1.

132. Determine the tan of the straight line (y=ax+b) with the x-axis, that passes through the points (5,24) and (3,4).

- o (a) tan = a = 1/10
- o (b) tan = a = 1/21
- • (c) tan = a = 10

If choice c is selected set score to 1.

133. Determine the equation of the straight line that passes through the points (1,11) and (5,3).

- o (a) y = 2x+3
- • (b) y = -2x+13
- o (c) y = 0,5x+0,5

If choice b is selected set score to 1.

134. Determine the equation of the straight line that passes through the points (1,3) and tan with the x-axis = 2.

- o (a) y = 0,5x+2,5
- o (b) y = 0,5x+8,5
- • (c) y = 2x+1

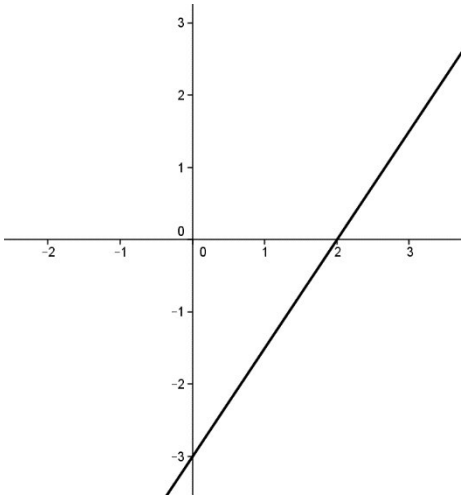
If choice c is selected set score to 1.

135. Determine the equation of the straight line that passes through the points (-6,3) and (10,-45).

- o (a) y = -⅓x+1
- o (b) y = 3x+21
- • (c) y = -3x-15

If choice c is selected set score to 1.

136. Determine the function of the graph in the figure below.

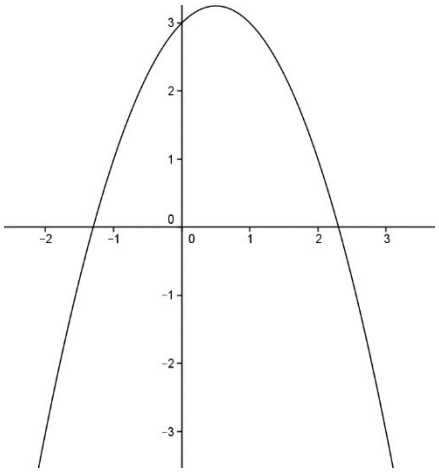


- (a) y = 1,5x - 3

o (b) y = 1,5x + 3
o (c) y = -1,5x - 3

If choice a is selected set score to 1.

137. Determine the function of the graph in the figure below.

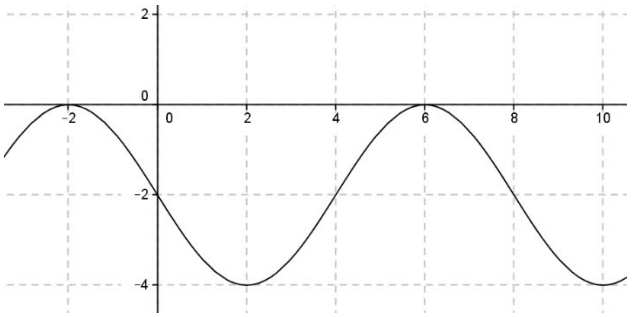


o (a) $y = x^2+x+3$
o (b) $y = x^2+x-3$

- (c) $y = -x^2+x+3$

If choice c is selected set score to 1.

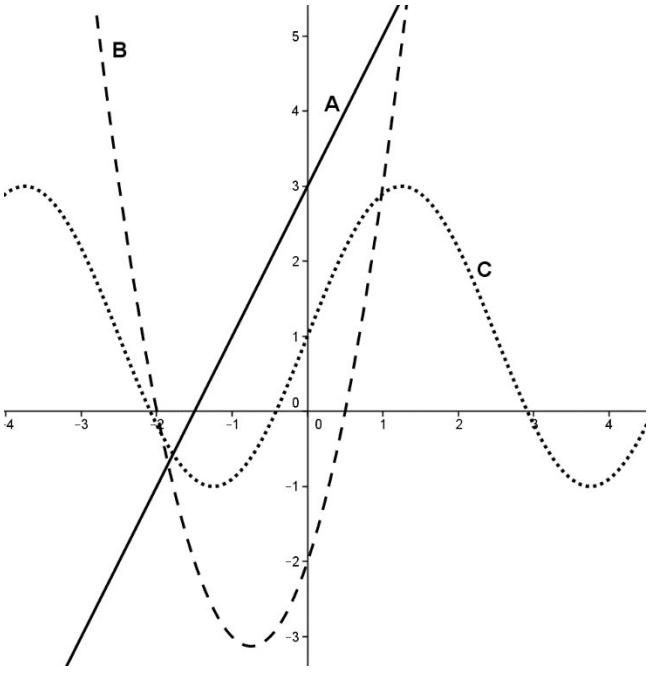
138. Determine the function of the graph below.



- o (a) y = -2sin(0,25 π xt+ π)+2
- o (b) y = -2sin(0,25 π xt+ π)-2
- • (c) y = 2sin(0,25 π xt+ π)-2

If choice c is selected set score to 1.

139. Three kinds of graphs are shown. Which graph belongs to the equation y= 2x+3?



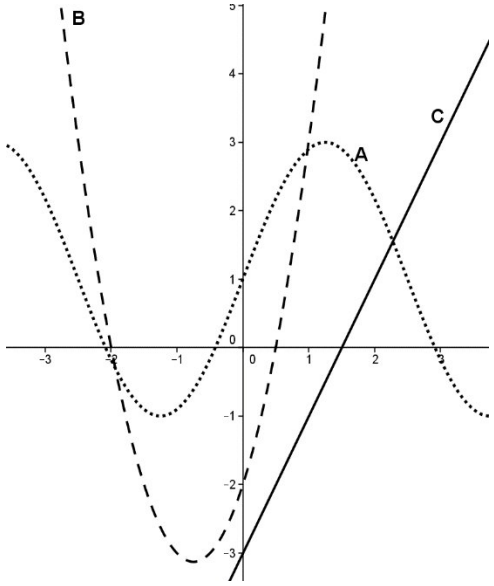
- o (a) Line B

- (b) Line A

o (c) Line C

If choice b is selected set score to 1.

140. Three kinds of graphs are shown. Which graph belongs to the quation $y= 2x^2+3x-2$?



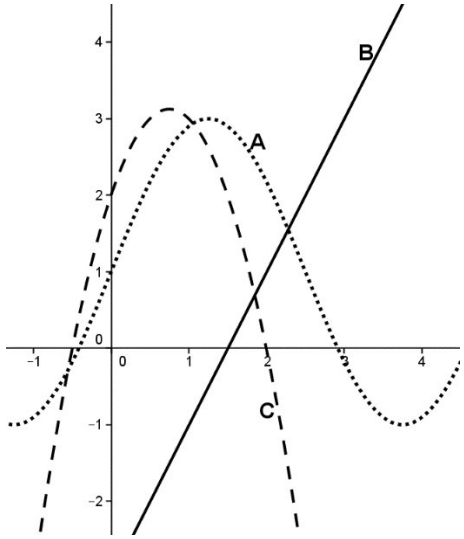
o (a) Line A

- (b) Line B

o (c) Line C

If choice b is selected set score to 1.

141. Three kinds of graphs are shown. Which graph belongs to the quation y= 2sin(0,4πx)+1?

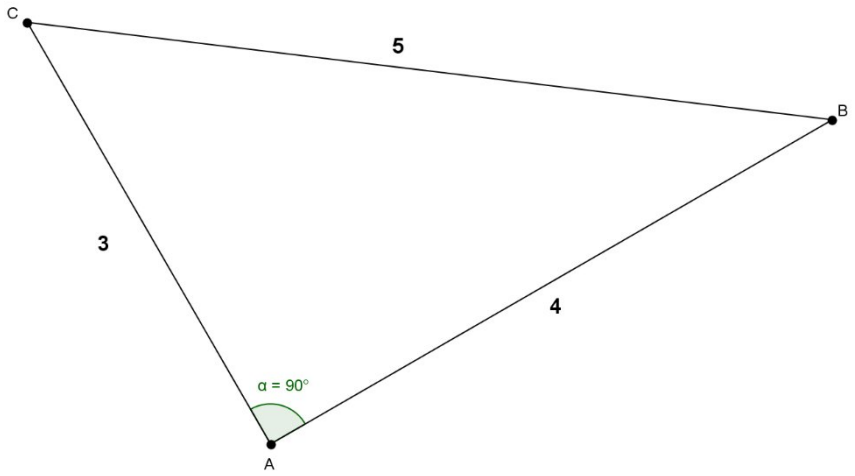


- o (a) Line C
- o (b) Line B

- • (c) Line A

If choice c is selected set score to 1.

142. Calculate the shortest rectangular side if the hypotenuse has a length of 45 cm.

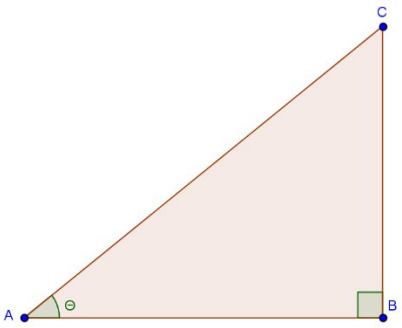


- o (a) 36 cm
- o (b) 75 cm

- • (c) 27 cm

If choice c is selected set score to 1.

143. Sin θ = 4 / 6,4. Calculate the adjacent.

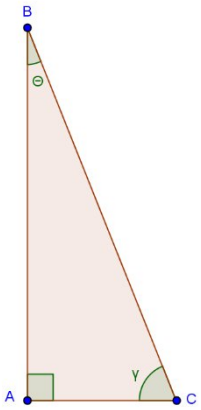


- (a) 5

o (b) $\sqrt{(57)}$
o (c) 3,2

If choice a is selected set score to 1.

144. Tan θ = 2 / 5. Determine tan y.



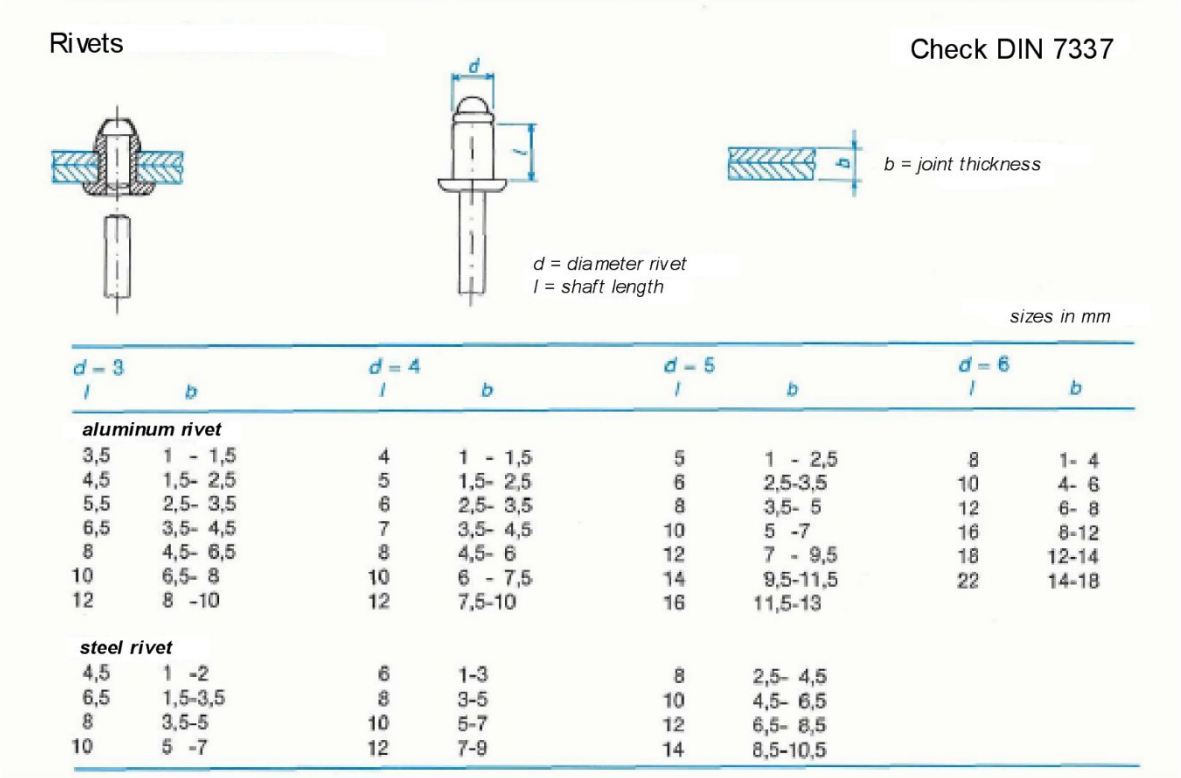
o (a) $\sqrt{(21)}$

- (b) 2,5

o (c) 5

If choice b is selected set score to 1.

145. Which rivet do we use to fasten two aluminum plates of 2 mm thickness each? The hole diameter is 5 mm.



Rivets

Check DIN 7337

sizes in mm

d = 3		d = 4		d = 5		d = 6	
l	b	l	b	l	b	l	b
aluminum rivet							
3,5	1 - 1,5	4	1 - 1,5	5	1 - 2,5	8	1- 4
4,5	1,5- 2,5	5	1,5- 2,5	6	2,5-3,5	10	4- 6
5,5	2,5- 3,5	6	2,5- 3,5	8	3,5- 5	12	6- 8
6,5	3,5- 4,5	7	3,5- 4,5	10	5 -7	16	8-12
8	4,5- 6,5	8	4,5- 6	12	7 - 9,5	18	12-14
10	6,5- 8	10	6 - 7,5	14	9,5-11,5	22	14-18
12	8 -10	12	7,5-10	16	11,5-13		
steel rivet							
4,5	1 -2	6	1-3	8	2,5- 4,5		
6,5	1,5-3,5	8	3-5	10	4,5- 6,5		
8	3,5-5	10	5-7	12	6,5- 8,5		
10	5 -7	12	7-9	14	8,5-10,5		

- o (a) The length of the rivet is 6,5mm.
- • (b) The length of the rivet is 8mm.
- o (c) The length of the rivet is 7mm

If choice b is selected set score to 1.

146. Which rivet do we use to fasten two aluminum plates, one of 1 mm and the other of 2 mm thickness. The hole diameter is 4 mm.

Rivets

Check DIN 7337

sizes in mm

d = 3		d = 4		d = 5		d = 6	
l	b	l	b	l	b	l	b
aluminum rivet							
3,5	1 - 1,5	4	1 - 1,5	5	1 - 2,5	8	1- 4
4,5	1,5- 2,5	5	1,5- 2,5	6	2,5-3,5	10	4- 6
5,5	2,5- 3,5	6	2,5- 3,5	8	3,5- 5	12	6- 8
6,5	3,5- 4,5	7	3,5- 4,5	10	5 -7	16	8-12
8	4,5- 6,5	8	4,5- 6	12	7 - 9,5	18	12-14
10	6,5- 8	10	6 - 7,5	14	9,5-11,5	22	14-18
12	8 -10	12	7,5-10	16	11,5-13		
steel rivet							
4,5	1 -2	6	1-3	8	2,5- 4,5		
6,5	1,5-3,5	8	3-5	10	4,5- 6,5		
8	3,5-5	10	5-7	12	6,5- 8,5		
10	5 -7	12	7-9	14	8,5-10,5		

- o (a) The length of the rivet is 8mm.
- • (b) The length of the rivet is 6mm.
- o (c) The length of the rivet is 5,5mm

If choice b is selected set score to 1.

147. Which rivet do we use to fasten two steel plates, one of 6 mm and the other of 4 mm thickness. The hole diameter is 5 mm.

Rivets

Check DIN 7337

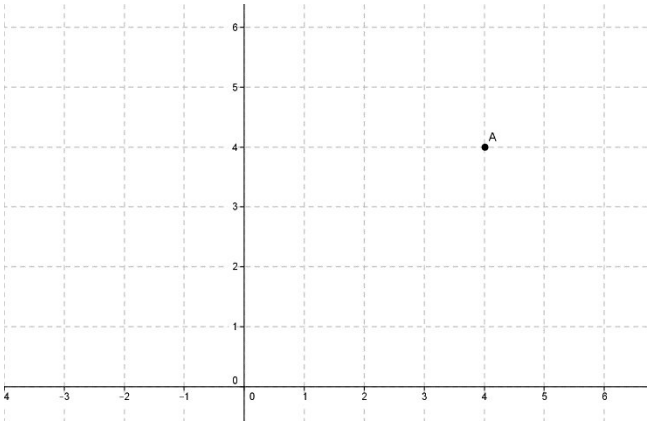
sizes in mm

d = 3		d = 4		d = 5		d = 6	
l	b	l	b	l	b	l	b
aluminum rivet							
3,5	1 - 1,5	4	1 - 1,5	5	1 - 2,5	8	1- 4
4,5	1,5- 2,5	5	1,5- 2,5	6	2,5-3,5	10	4- 6
5,5	2,5- 3,5	6	2,5- 3,5	8	3,5- 5	12	6- 8
6,5	3,5- 4,5	7	3,5- 4,5	10	5 -7	16	8-12
8	4,5- 6,5	8	4,5- 6	12	7 - 9,5	18	12-14
10	6,5- 8	10	6 - 7,5	14	9,5-11,5	22	14-18
12	8 -10	12	7,5-10	16	11,5-13		
steel rivet							
4,5	1 -2	6	1-3	8	2,5- 4,5		
6,5	1,5-3,5	8	3-5	10	4,5- 6,5		
8	3,5-5	10	5-7	12	6,5- 8,5		
10	5 -7	12	7-9	14	8,5-10,5		

- o (a) The length of the rivet is 10mm.
- • (b) The length of the rivet is 14mm.
- o (c) The length of the rivet is 12mm

If choice b is selected set score to 1.

148. Determine the polar coordinates of point A in the drawing.

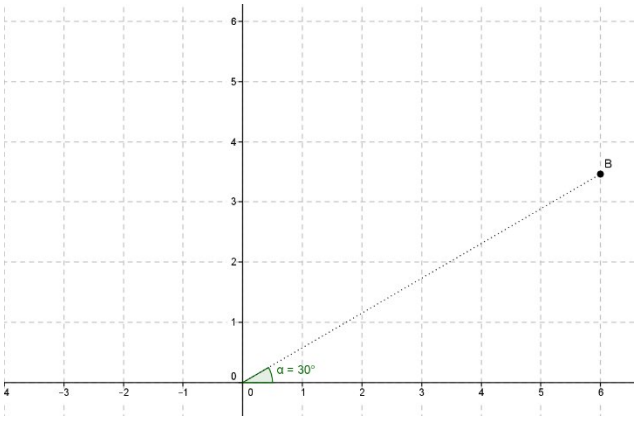


- (a) (4 $\sqrt{(2)}$; -45 degrees)
- (b) (2 $\sqrt{(4)}$;-45 degrees)

- (c) (4 $\sqrt{(2)}$; 45 degrees)

If choice c is selected set score to 1.

149. Determine cartesian coordinates of point B in the drawing.

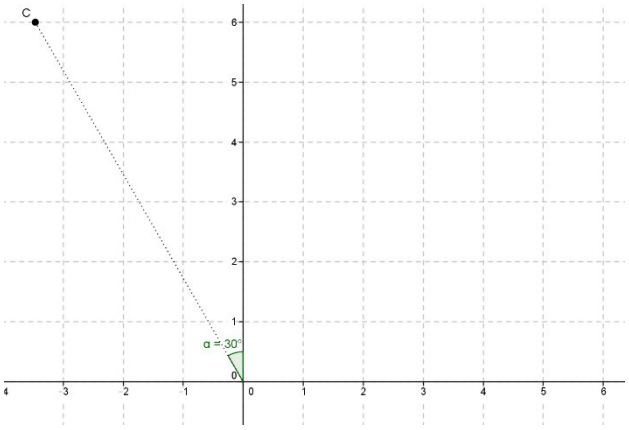


- (a) (6; 6$\sqrt{(3)}$)
- (b) (6$\sqrt{(3)}$; 6)

- (c) (6; 6/$\sqrt{(3)}$)

If choice c is selected set score to 1.

150. Determine the polar coordinates of point C in the drawing.



- o (a) (12/$\sqrt{(3)}$; 30degrees)
- • (b) (12/$\sqrt{(3)}$; 120degrees)
- o (c) (-12/$\sqrt{(3)}$; 120degrees)

If choice b is selected set score to 1.

If assessment score is 0% to 100% Feedback