Question block created by wizard

This exam contains 32 questions

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

o (a) -2

• (b) 3

o (c) 2,5

If choice b is selected set score to 1.

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

o (a) 0,125

• (b) 0,625

o (c) 0,0625

If choice b is selected set score to 1.

3. Calculate: 68182 : 73 =

• (a) 934

o (b) 0,934
o (c) 9340

If choice a is selected set score to 1.

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

• (a) $1^{7}/_{8}$

o (b) $^{8}/_{15}$
o (c) $^{3}/_{40}$

If choice a is selected set score to 1.

5. Safety shoes 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.

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

- o (a) 251,3 cm²
- • (b) 226,2 cm²
- o (c) 314 cm²

If choice b is selected set score to 1.

7. $^{2}\sqrt{(81)}$ =

- • (a) 9
- o (b) 8
- o (c) 3

If choice a is selected set score to 1.

8. 8^3 =

- o (a) 24
- o (b) 64
- • (c) 512

If choice c is selected set score to 1.

9. Calculate: 2x·3y + 5x·4y =

- o (a) $26x^2y^2$
- • (b) 26xy
- o (c) 7x+7y

If choice b is selected set score to 1.

10. Calculate: $^{ab}/_{d} + {}^{d}/_{c}$ =

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

If choice c is selected set score to 1.

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

- o (a) -2

- (b) $-2x^2 / y^2$

o (c) $-y^2 / 2x^2$

If choice b is selected set score to 1.

12. Calculate: $^{12x}/_{y} - (\,^{-6y}/_{x}) =$

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

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

If choice c is selected set score to 1.

13. Calculate: $-3(a+b) =$

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

- (c) -3a-3b

If choice c is selected set score to 1.

14. Calculate: $(a+b) \cdot (a-b) =$

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

- (b) a^2-b^2

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

If choice b is selected set score to 1.

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

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

- (c) $^7/_{12}\, a$

If choice c is selected set score to 1.

16. Calculate $^1/_6\ a : {}^1/_3\ a =$

o (a) $^1/_{18}\, a$
o (b) $^1/_2\, a$

- (c) $^1/_2$

If choice c is selected set score to 1.

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

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

If choice b is selected set score to 1.

18. 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.

19. $\sqrt[3]{8}$ =

- • (a) 2
- o (b) 8 : 3 = $2^2/_3$
- o (c) 8 : $^1/_3$ = 24

If choice a is selected set score to 1.

20. $10011_{(2)}$ =.....$_{(10)}$

- o (a) 18
- o (b) 20
- • (c) 19

If choice c is selected set score to 1.

21. 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.

22. We can write: log(AB) =

- o (a) log(A) x log(B)
- • (b) log(A) + log(B)

o (c) log(A) - log(B)

If choice b is selected set score to 1.

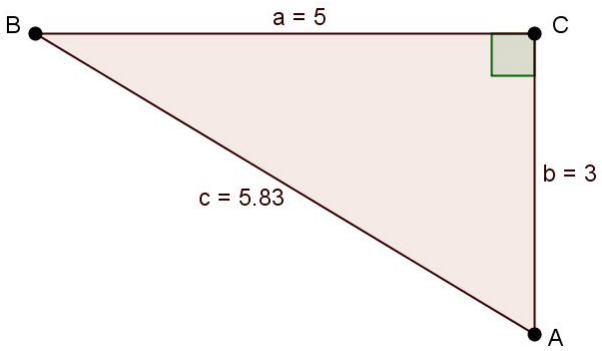
23. The cosin of an angle is:

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

• (c) adjacent divided by the hypotenus.

If choice c is selected set score to 1.

24. The tangent of angle B is:

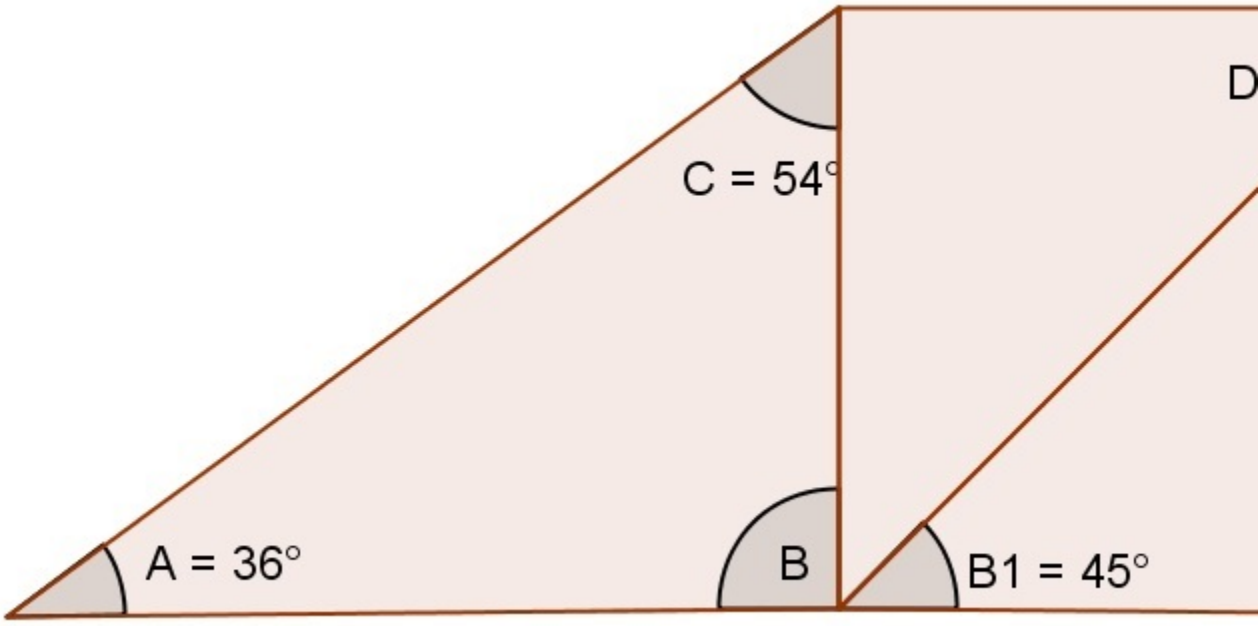


• (a) $^{3}/_{5}$

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

If choice a is selected set score to 1.

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



- (a) 121°
- (b) 120°

- (c) 122°

If choice c is selected set score to 1.

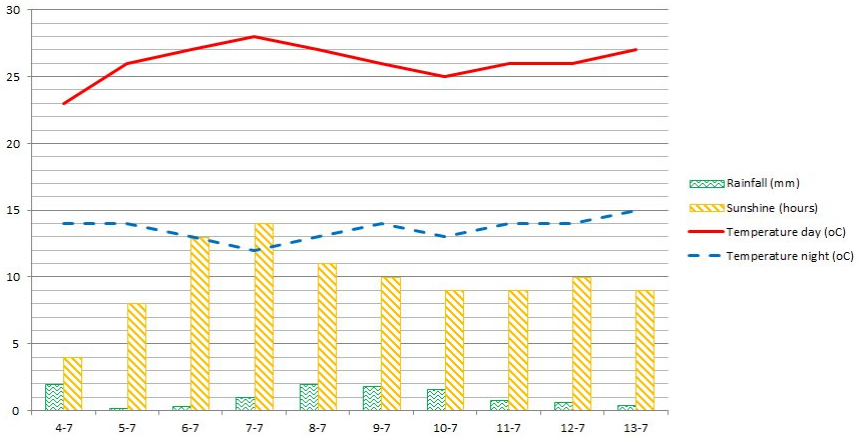
26. Equation: y = 0,5x-1

- (a) The equation represents a sloping line.

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

If choice a is selected set score to 1.

27. Calculate the average sunshine hours from the fourth till the eights day of July.



- (a) 10 hours

o (b) 8 hours
o (c) 9 hours

If choice a is selected set score to 1.

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

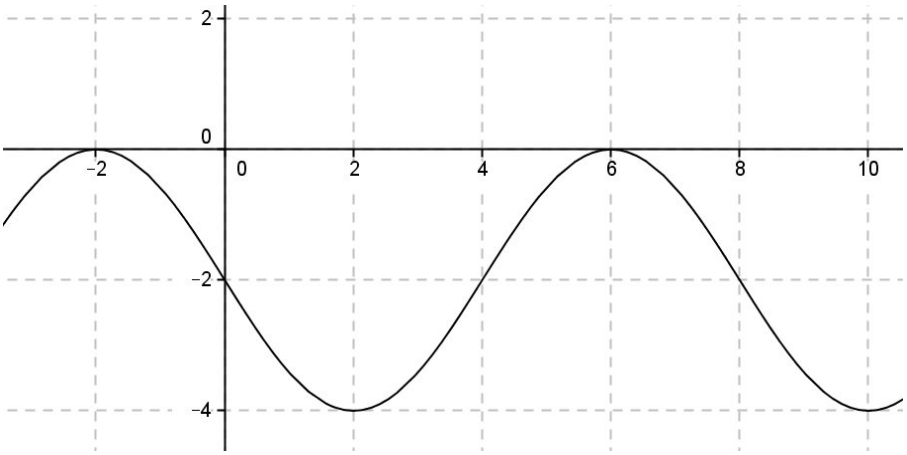
o (a) tan = a = 1/10

- (b) tan = a = 10

o (c) tan = a = 1/21

If choice b is selected set score to 1.

29. Determine the function of the graph below.

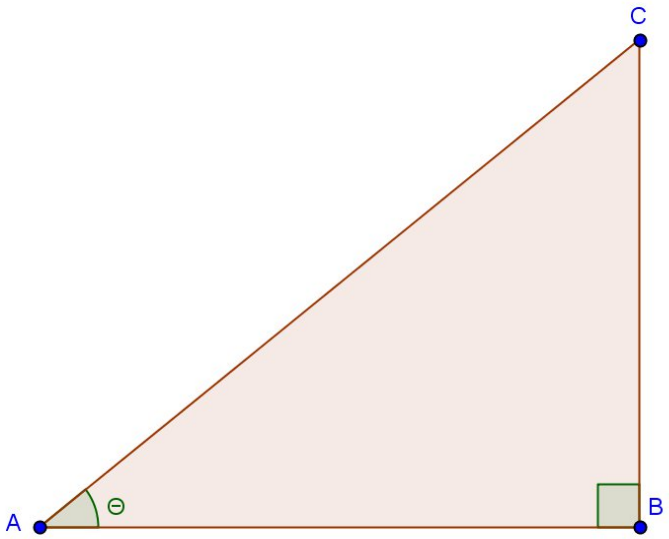


- (a) y = 2sin(0,25 π xt+ π)-2

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

If choice a is selected set score to 1.

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



o (a) $\sqrt{(57)}$

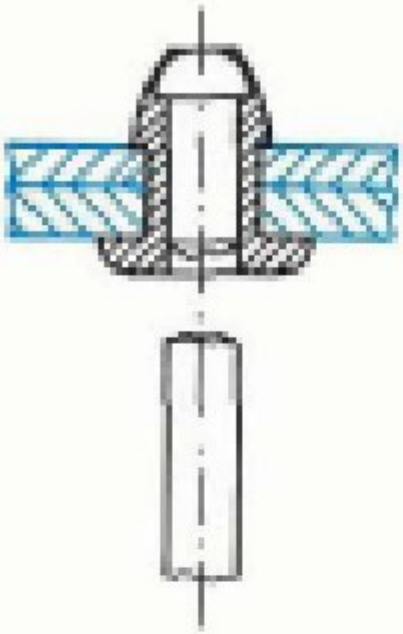
- (b) 5

o (c) 3,2

If choice b is selected set score to 1.

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

Rivets



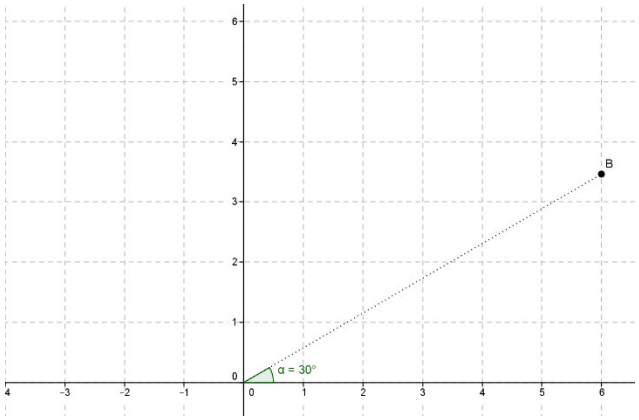
d = 3		d = 4
l	b	l
aluminum rivet		
3,5	1 - 1,5	4
4,5	1,5- 2,5	5
5,5	2,5- 3,5	6
6,5	3,5- 4,5	7
8	4,5- 6,5	8
10	6,5- 8	10
12	8 -10	12
steel rivet		

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

- (c) The length of the rivet is 8mm.

If choice c is selected set score to 1.

32. 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 a is selected set score to 1.

If assessment score is 75% to 100% Pass
If assessment score is 0% to 74% Fail