Question block created by wizard

This exam contains 32 questions

1. 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.

2. Which statement is 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.

3. Calculate: 128 · 173 =

o (a) 3460

• (b) 22144

o (c) 9344

If choice b is selected set score to 1.

4. 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.

5. 3,5 inch = ... cm

o (a) 1,16

• (b) 8,9

o (c) 1,38

If choice b is selected set score to 1.

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

- o (a) 7,96 cm²
- o (b) 15,7 cm²
- • (c) 78,5 cm²

If choice c is selected set score to 1.

7. √(64) =

- • (a) 8
- o (b) 2
- o (c) 10

If choice a is selected set score to 1.

8. 7^2 =

- • (a) 49
- o (b) 14
- o (c) 3,5

If choice a is selected set score to 1.

9. Calculate a-a-b+c =

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

If choice a is selected set score to 1.

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

- • (a) (3a+2b) / (ab)
- o (b) (3a+2b) / (a+b)
- o (c) 5 /(a+b)

If choice a is selected set score to 1.

11. Calculate: $^{ab}/_b \cdot {}^a/_c$ =

- o (a) c
- • (b) a^2 /c

- o (c) 1/c

If choice b is selected set score to 1.

12. Calculate: $^{3x}/_{4y} + {}^{5x}/_{y}$

- o (a) $8x / 4y^2$
- • (b) 23x / 4y
- o (c) 8x / 4y

If choice b is selected set score to 1.

13. Calculate: 3(a+b) =

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

If choice a is selected set score to 1.

14. Calculate: (a+b) · (a+b) =

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

If choice b is selected set score to 1.

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

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

If choice c is selected set score to 1.

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

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

If choice a is selected set score to 1.

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

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

If choice c is selected set score to 1.

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

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

If choice b is selected set score to 1.

19. $4^{1/2}$ =

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

If choice c is selected set score to 1.

20. $17_{(10)}$ = ...$_{(8)}$

- • (a) 21
- o (b) 17
- o (c) 20

If choice a is selected set score to 1.

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

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

If choice c is selected set score to 1.

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

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

- (b) $^{y}\log(b) = x$

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

If choice c is selected set score to 1.

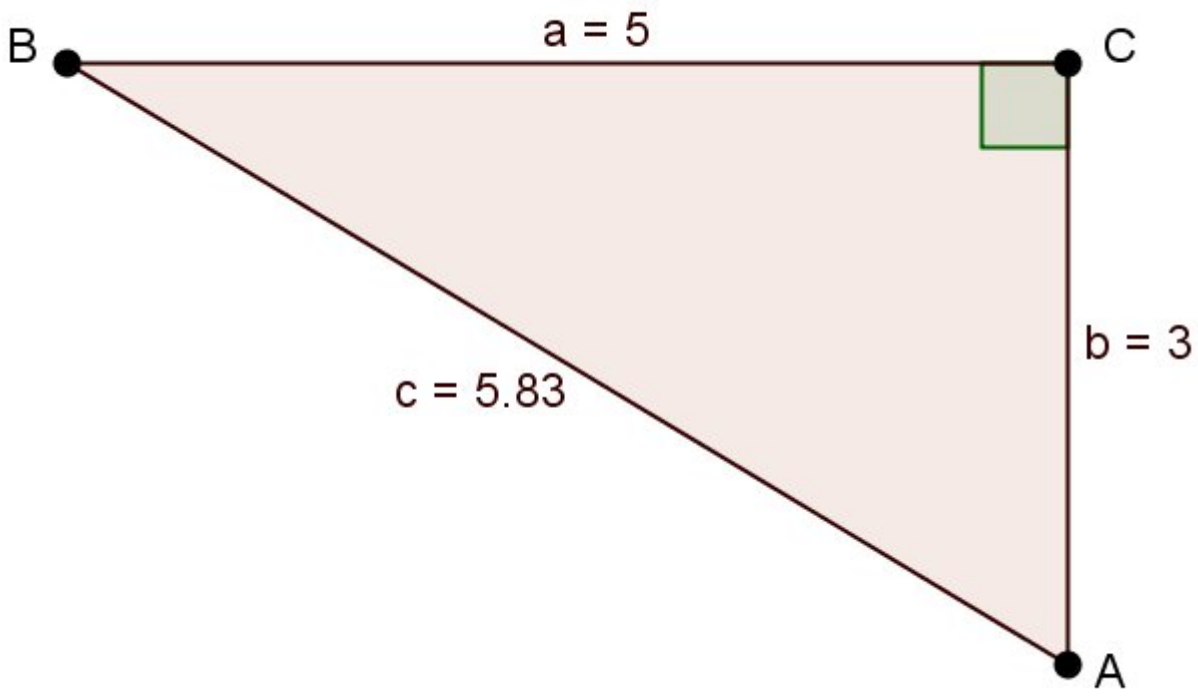
23. The sinus of an angle is:

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

- (c) opposite divided by the hypotenus.

If choice c is selected set score to 1.

24. The sine of angle A is?

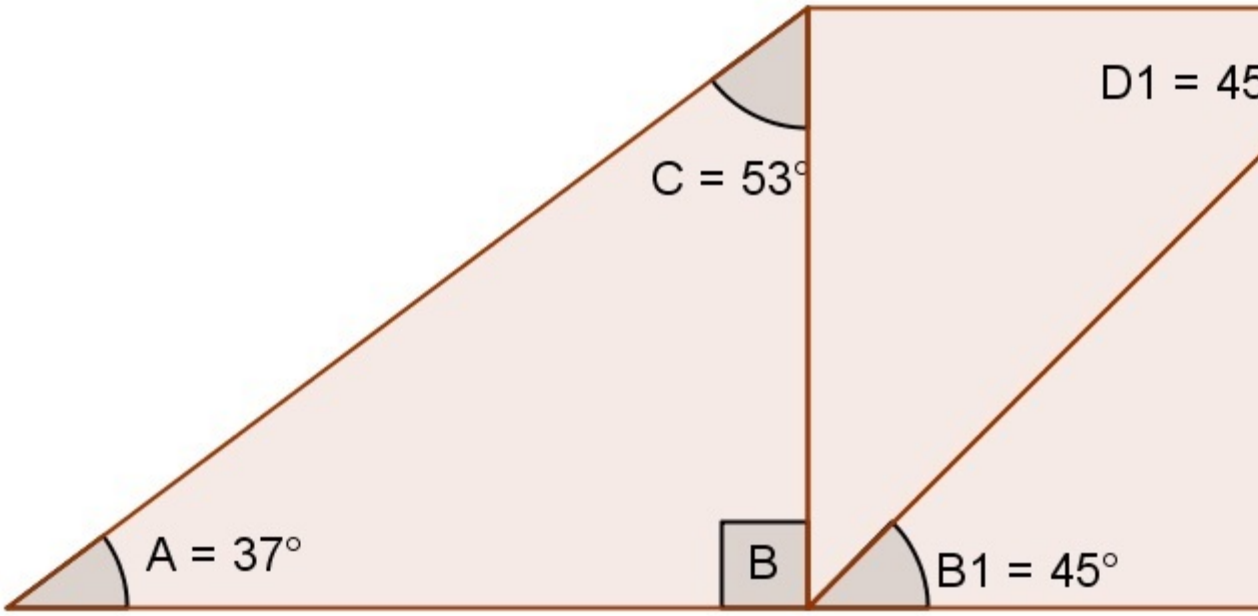


- (a) 300 / 583
- (b) 583 / 500

- (c) 500 / 583

If choice c is selected set score to 1.

25. Determine the magnitude of angle D2 ?



- (a) 80°
- (b) 79°
- (c) 81°

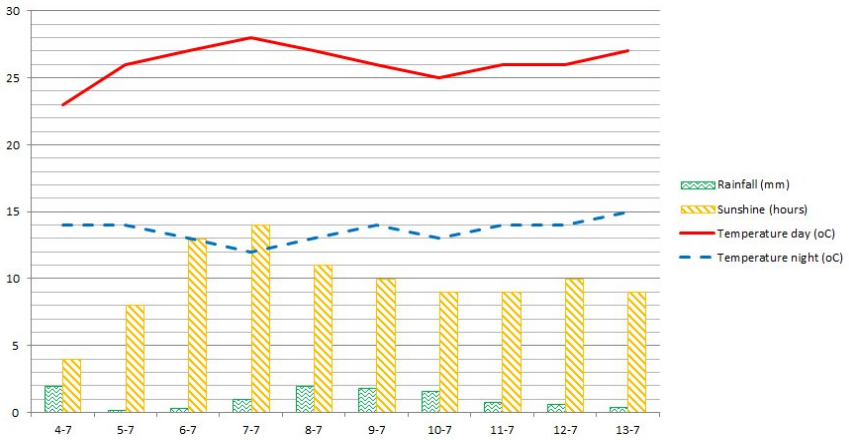
If choice b is selected set score to 1.

26. Equation: y = -2x-5

- (a) The number -5 represents the point of the intersection with the y-axis.
- (b) The number -5 represents the slope of the graph.
- (c) The number -5 represents the point of the intersection with the x-axis.

If choice a is selected set score to 1.

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



- (a) 3 mm

o (b) 2 mm
o (c) 1 mm

If choice a is selected set score to 1.

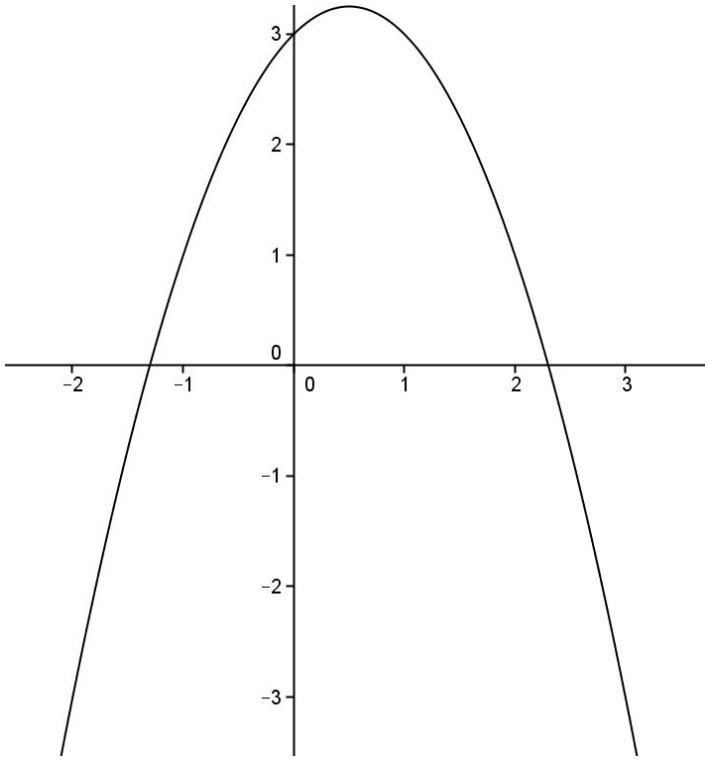
28. Determine the point of intersection with the y-axis of the straight line (y=ax+b) that passes through the points (-2,3) and (-5,9).

- (a) y = -1

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

If choice a is selected set score to 1.

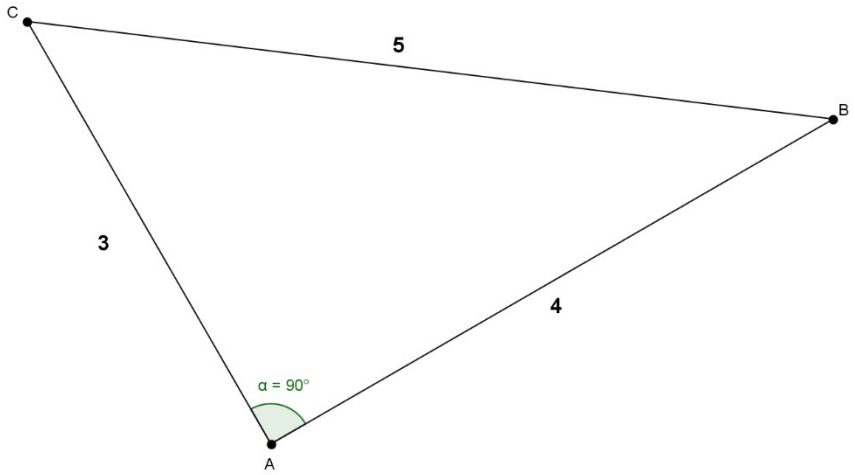
29. Determine the function of the graph in the figure below.



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

If choice b is selected set score to 1.

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



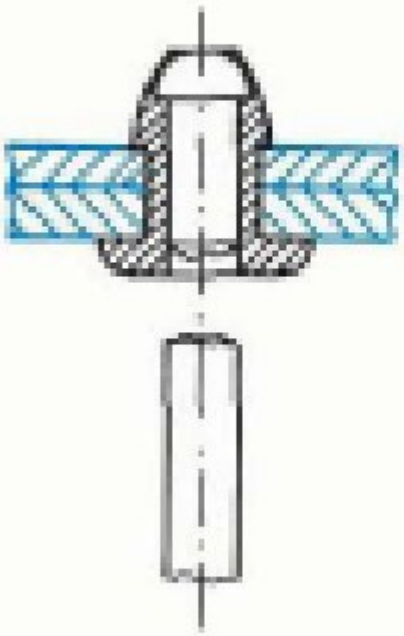
- (a) 27 cm

o (b) 75 cm
o (c) 36 cm

If choice a is selected set score to 1.

31. 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

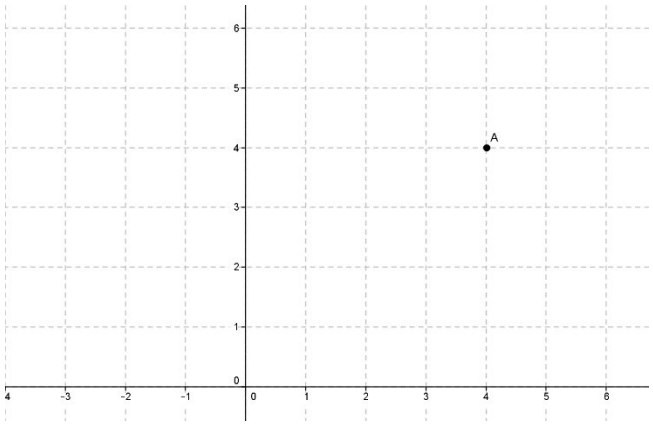


d = 3		d = 4
l	b	l
aluminum rivet		
3,5	1 - 1,5	4
4,5	1,5- 2,5	5
5,5	2,5- 3,5	6
6,5	3,5- 4,5	7
8	4,5- 6,5	8
10	6,5- 8	10
12	8 -10	12
steel rivet		

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

If choice b is selected set score to 1.

32. 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.

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