

Mathematics

Delprov B

Årskurs

9

Elevens namn och klass/grupp

Instructions – part B

This part consists of tasks that you must solve without digital devices or formula sheets.

The maximum number of points you can get for your answer is shown after each task. For example, (2/1/0) means that the task can give 2 E points, 1 C-point and 0 A-points.

Aids: No aids required.

You will be given parts B and C at the same time. You are not allowed to use digital devices and formula sheet for part B. When you hand in part B you will be given access to digital devices and formula sheet. We recommend that you review and begin part C before handing in part B. This can help you use your time better.

Test time: 80 minutes for parts B and C together.

Write your answers in the test booklet.

Name: _____

School: _____ Class: _____

Birth date (year/month/day): _____

Good luck!

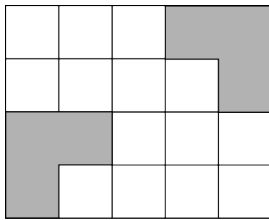
Illustrations: Jens Ahlbom

1. Write two million five hundred and four thousand in figures.

Answer: _____

(1/0/0)

2. What percentage of the figure is shaded?



Answer: _____ % (1/0/0)

3. Calculate $50 - 9 \times 6 =$

Answer: _____ (1/0/0)

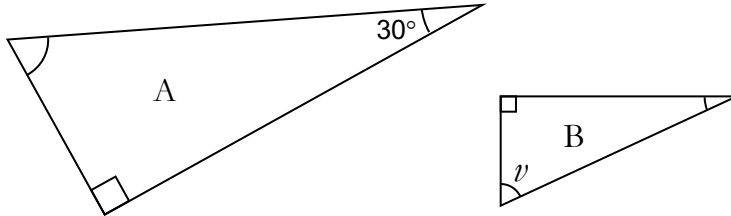
4. At the taco buffet, customers can choose between
- hard or soft bread
 - soya mince, chicken mince or beef mince
 - curry sauce, garlic sauce or taco sauce.

How many different combinations of bread, mince and sauce are possible, if you take one of each kind?

Answer: _____ combinations (1/0/0)



5. Triangles A and B are similar.
What is angle v ?



Answer: $v =$ _____ ° (1/0/0)

6. At Centralskolan, eight pupils received the grade A in mathematics. This corresponds to 5 % of all pupils.
How many pupils are there at Centralskolan?

Answer: _____ pupils (1/0/0)

7. Calculate

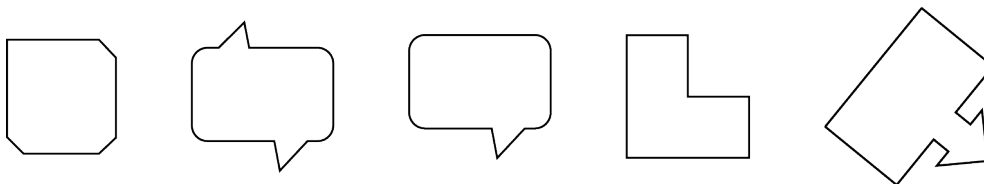
a) 0.3×0.2

Answer: _____ (1/0/0)

b) 0.25×4.4

Answer: _____ (1/0/0)

8. Draw *one* line of symmetry in the figures, where possible.

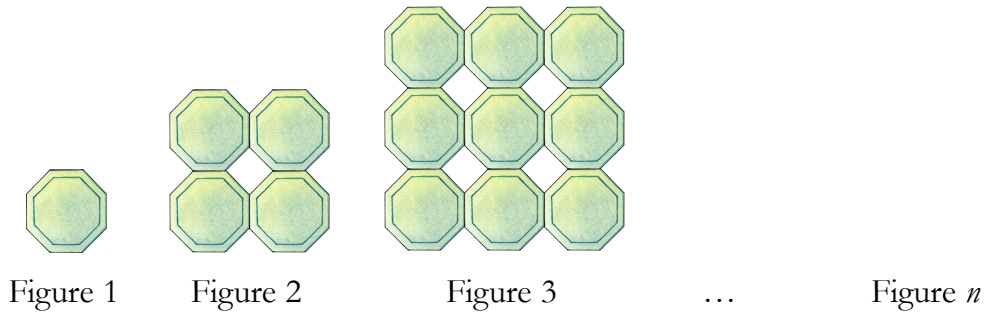


(1/1/0)

9. How much is $\frac{1}{3}$ of $\frac{1}{4}$?

Answer: _____ (0/1/0)

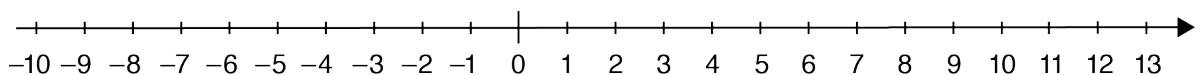
10. The figures in the pattern are constructed of green tiles. Between four tiles, a small, white square is formed. The pattern continues to increase in the same way.



- a) How many green tiles are there in figure 5? Answer: _____ (1/0/0)
- b) How many green tiles are there in figure n ? Answer: _____ (0/1/0)
- c) How many white squares are formed in figure 5? Answer: _____ (1/0/0)
- d) How many white squares are formed in figure n ? Answer: _____ (0/0/1)

11. Mark three numbers on the line.

- Mark 2^3 on the line with an arrow *and* write A next to the arrow.
- Mark $\sqrt{26}$ on the line with an arrow *and* write B next to the arrow.
- Mark 9×10^{-1} on the line with an arrow *and* write C next to the arrow.



(1/1/1)

12. Leo and Selma are mixing sports drinks. Leo mixes 6 tablespoons of powder with 4 dl of water and Selma mixes 10 tablespoons of powder with 6 dl of water. Which sports drink will be the most concentrated (strongest)? Circle your answer.

Leo's sports drink

Selma's sports drink

It is not possible to know

Both sports drinks have the same concentration (are equally strong)

(0/1/0)



13. Which expression has the greatest value when n is a *negative* number? Circle your answer.

$n - 2$

$2n$

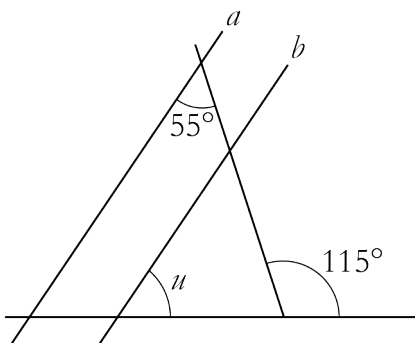
n^2

$\frac{n}{2}$

$\frac{2}{n}$

(0/1/0)

14. Lines a and b are parallel. What is the angle u ?



The figure is not drawn to scale.

Answer: $u =$ _____ ° (0/1/0)

15. In a football club, there are 3 times as many players as coaches. Which formula shows the relationship between the number of players, s , and the number of coaches, t ? Circle your answer.

$s + 3 = t$

$t + 3 = s$

$3s = t$

$3t = s$

$\frac{t}{3} = s$

$\frac{3}{s} = t$

(0/1/0)

16. Which expression gives the same value as $\frac{1}{5} - \frac{1}{7}$? Circle your answer.

$\frac{1}{5-7}$

$\frac{1-1}{5-7}$

$\frac{1-1}{7-5}$

$\frac{7-5}{5 \times 7}$

$\frac{5-7}{5 \times 7}$

(0/1/0)

17. What number is 300 % larger than 10?

Answer: _____

(0/1/0)

18. Simplify as far as possible $\frac{5b + 3b + 2b}{5b}$

Answer: _____

(0/0/1)

19. A straight line has the equation $y = 5x + 8$. Write the equation for another straight line which is parallel to this one.

Answer: $y =$ _____

(0/0/1)

