



Dynamic Duo (6) – Part 2

Dynamic Duo (6)

25 minutes, 20 questions

Rules

Each section contains 20 questions. This packet includes Section 2 of Dynamic Duo. You are allowed to use a calculator for both sections. Students may work ONLY with their partners to complete this problems. When you have finished this section, please do not look back on the other section; check your work in this one only. There was a 5 minute break in between sections. Although this event does not count towards team scores, top individuals will receive awards.

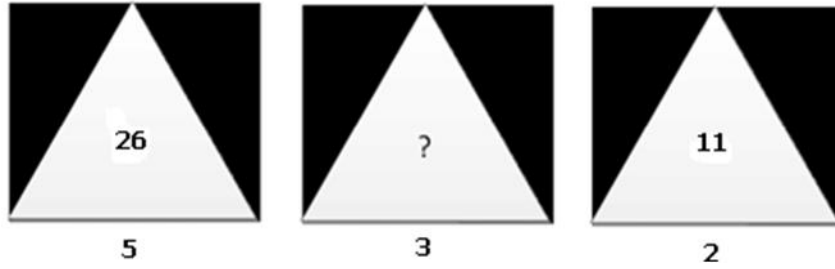
Please write all answers onto the answer sheet. You may write directly on this test – however only answers written onto the answer sheet will be graded. Please write as neatly as possible on the blank spaces of the answer sheet. If graders are unable to read the answers, you will not be given credit.

Names _____

School _____ Grade _____

1) Fill in the missing number denoted by a “?”.

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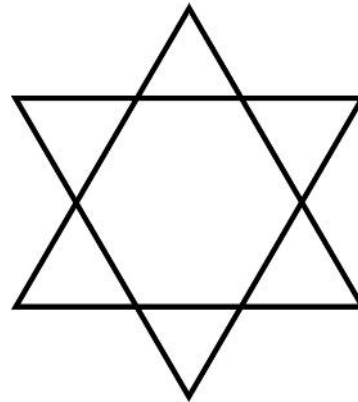


2) A spy uses a coded language. In his language, if BARK is written as CBSL, what is DOG written as?

3) Amy started at a point and walked 4 feet due south. She turned left and walked 6 feet, and then turned right and walked 4 feet. How far is Amy from the starting point in feet?

4) A clock without digits is laying on a table, displaying 12 : 35. A mirror is placed to the right side of the clock, perpendicular to the table. What is the time the mirror clock displays (disregard the mirror clock's hour numbers)?

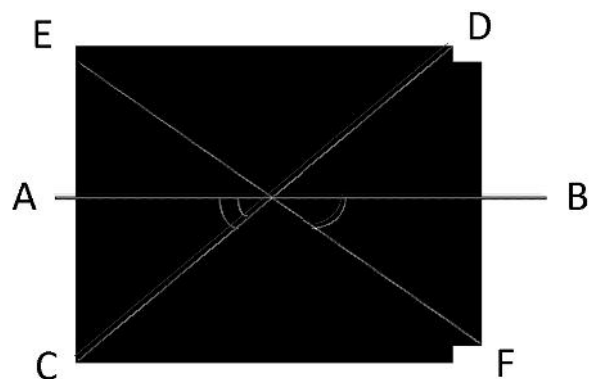
5) How many triangles are in the following figure?



6) The mean of the test scores of 100 students was found to be 40. It was later discovered that a score of 53 was misread as 83. What is the actual mean?

7) The median of the set of numbers $S = [11, 12, 14, 18, x + 2, x + 4, 30, 32, 35, 41]$ arranged in ascending order is 24. Find the value of x .

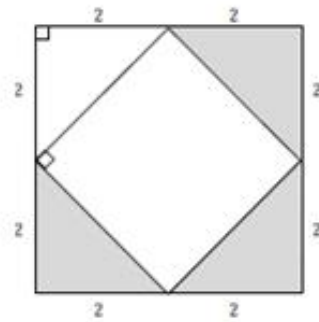
8) In the following figure, three straight lines AB , CD , and EF intersect at O such that



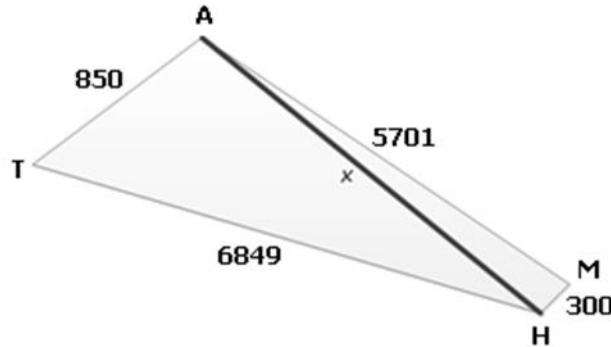
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$\angle AOC = 40^\circ$ and $\angle BOF = 30^\circ$. Find $\angle EOD$.

9) Find the probability that a randomly chosen point falls in the shaded area in the following figure.



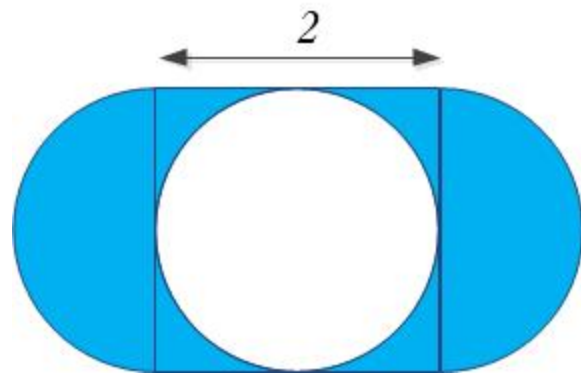
10) Given the following figure, find the value of the positive integer x (figure not to scale).



11) How many lines of symmetry does a regular hexagon have?

12) A circle of radius r and a square of side a have the same area. Find the ratio $\frac{a}{r}$.

13) A paper sheet is the shape of a two-unit square with semicircles on opposite sides. If a disk with a





Dynamic Duo (6) Solutions – Part 2

1. 16
2. EPH
3. 10 ft
4. 11:25
5. 8
6. 39.7
7. $x=21$
8. 110
9. $\frac{3}{8}$
10. 6000
11. 6
12. $\sqrt{\pi}$
13. 4
14. 32
15. < 3
16. 2
17. 2
18. 1033
19. $\frac{3}{7}$
20. A circle with radius 10m.