

Practice Cayley Number 4

- If $x - y = -5$ and $y - z = 8$ then $z - x$ equals
a) 13 b) -13 c) 3 d) -3 e) -40
- The value of $a^2 - 6ab + 9b^2$ when $a = -8$ and $b = -3$ is
a) 1 b) 289 c) -289 d) -161 e) -1
- The value of $\frac{1}{5}$ of 10^{20} is
a) 10^4 b) 2^{20} c) 2^4 d) 2×10^4 e) 2×10^{19}
- The value of $1 + \frac{1}{1 + \frac{1}{1 + \frac{1}{8}}}$ is:
a) $\frac{34}{21}$ b) $\frac{34}{55}$ c) $\frac{55}{21}$ d) $\frac{89}{55}$ e) $\frac{55}{34}$
- Determine x if $8^{x+5} = 4^{4x}$.
a) 0 b) 1 c) 2 d) 3 e) 4
- The ten points A, B, C, \dots, J form a regular decagon. Determine, in degrees, the angle ADG
a) 108 b) 36 c) 72 d) 54 e) 144
- If three of the vertices of a parallelogram are $(3, 4)$, $(5, -2)$ and $(-7, 7)$ then a possible location for the 4th vertex is
a) $(1, 9)$ b) $(15, -5)$ c) $(-9, 9)$ d) $(4, 1)$ e) $(5, 9)$
- Evaluate $1 + 3 - 5 + 7 + 9 - 11 + 13 + 15 - 17 + \dots + 295 + 297 - 299$.
a) 6000 b) 6300 c) 6800 d) 7300 e) 8100
- The digits 1, 2, 3, 4, 5, 6 can be arranged to form 720 different 6 digit numbers. If these numbers are arranged in *decreasing* order what number is 500th in the list?
a) 316452 b) 261534 c) 256341 d) 265431 e) 216354
- The line l_1 has slope m and y intercept 12. The line l_2 has slope 2 and y intercept -18 . Determine the value of m so that the lines l_1 and l_2 intersect at a point along the line $y = 3x - 3$
a) 4 b) 8 c) -6 d) -2 e) -8