

Practice Cayley Number 1

- Calculate $\frac{16 + \frac{1}{8}}{8 + \frac{1}{16}}$
a) $\frac{1}{2}$ b) $\frac{129}{128}$ c) $\frac{129}{64}$ d) $1\frac{15}{16}$ e) 2
- While building his deck Peter uses boards that are 14 cm wide. He leaves a gap of 2 cm between boards. If Peter makes a deck that is 20 boards wide, what is the total width of his deck?
a) 30 m b) 28 m c) 3.18 m d) 3.06 m e) 2.8 m
- Maria has marks of 88%, 97% and 82% on her first 3 math tests. What mark does she need on her 4th test if her average on the 4 tests is to be 90%.
a) 93% b) 87% c) 91 % d) 95% e) 89%
- The area of a rectangle is given by $4x^2 - y^2$ and the length is $2x + y$. What is its perimeter?
a) $2x - y$ b) $4x + 2y$ c) $4y$ d) $4x$ e) $8x$
- What is the y intercept of the line through (4,6) and (6,16) ?
a) -14 b) -10 c) -6 d) 12 e) 16
- Solve for k : $\sqrt{2 + \sqrt{1 + k}} = \sqrt{5}$
a) 440 b) 24 c) 0 d) 8 e) 2
- A trapezoid $ABCD$ has parallel sides AB and DC of lengths 8 and 22. If both diagonals AC and BD are of length 17 , what is the area of the trapezoid?
a) 136 b) 128 c) 120 d) $15\sqrt{113}$ e) 56
- Three peoples ages, when multiplied together give 30030. If these 3 people were born within 10 years of each other, what is the sum of their three ages?
a) 94 b) 108 c) 102 d) 84 e) 60
- If in regular hexagon $ABCDEF$ vertices ACE are joined to form a triangle,what percentage of the area of the hexagon is triangle ACE ?
a) $33\frac{1}{3}$ b) 40 c) 50 d) 60 e) $66\frac{2}{3}$
- Triangle ABC has $AB = 1$, $AC = 2$ and $BC = \sqrt{3}$. If equilateral triangle XYZ has Z on AB , Y on BC and X on AC such that XY is parallel to AB , what is the length of the side of the triangle XYZ ?
a) $\frac{4}{3}$ b) $\frac{3\sqrt{3}}{2}$ c) $\frac{\sqrt{3}}{2}$ d) $\frac{\sqrt{3}}{3}$ e) $\frac{2}{3}$