Year 10 Numeracy Basics Test

Based on Australian Curriculum content from year 3 to year 9

Name: ___________________________

Time permitted = 30 minutes (students are encouraged to use the full time)
Students are permitted blank working paper. Times tables charts are not permitted.

 SCORE (out of 50) = ___________ PERCENTAGE = ___________

Numeracy - COMPETENT (90% + ) [ ]
Numeracy - SATISFACTORY (80% + ) [ ]
Numeracy - UNSATISFACTORY (< 80%) [ ]

Date: ___________________________
Parent signature: ___________________________

Question 1  9018 - 8013 ___________

Question 2  24 ÷ 8 ___________

Question 3  47 x 598 ___________

Question 4  Convert the fraction 57/1000 into a decimal. ___________

Question 5  0.19 ÷ 100 ___________

Question 6  Convert 8 L into mL. ___________

Question 7  (+3) - (+9) ___________

Question 8  Simplify answer 17/20 - 1/5 ___________

Question 9  4.58 ÷ 0.2 Answer as decimal ___________

Question 10  5/9 x 4/7 ___________

Question 11  A room contains 45 people of which 40 are girls. What fraction are girls? Simplify answer ___________

Question 12  A room contains 30 people of which 18 are boys. What percentage are boys? ___________

Question 13  Convert 15% to a fraction (simplify answer) ___________

Question 14  Find 7% of 5700 ___________

Question 15  A room with 56 people has boys to girls in the ratio 1:7. How many girls are in the room? ___________

Question 16  State the coordinates of the point shown on the axes if it is reflected through the Y axis. ___________

Question 17  State the equation of the line shown on the axes. ___________

Question 18  Plot the line y = -4x - 4 on the axes. ___________

Question 19  Write the fraction 7/9 as a recurring decimal ___________

Question 20  Write 5^13 ÷ 5^4 as a power of 5 ___________

Question 21  -5 x (3 + 6) ___________

Question 22  1/3 + 4/6 - 1/4 Answer as a simplified fraction ___________

Question 23  Decrease $40 by 12% ___________

Question 24  A plant is growing at a constant rate. It grew 56cm in 7 days. How long would it take to grow 80cm? ___________
Question 25
AC Year 8
A train departs at 04:08 and travels for 4 hours and 50 minutes. Calculate the arrival time (answer using 24 hour clock).

Question 26
AC Year 8
Factorise:

14ab - 2a

Question 27
AC Year 8
Expand & simplify:

3b ( 2 + a )

Question 28
AC Year 8
Simplify:

5mf + m ( 5 + 4f )

Question 29
AC Year 8
Simplify:

-3ac x 3ab

Question 30
AC Year 8
Solve the equation

3y + 1 = 5y - 3

Question 31
AC Year 8
Solve the equation

6y / 8 - 5 = 1

Question 32
AC Year 8
Given the venn diagram on the right, calculate the probability that event B does not occur.

Answer as a simplified fraction

A C Year 8

Question 33
AC Year 8
Convert 8.51cm^3 into mm^3

Question 34
AC Year 9
Calculate the perimeter of the composite shape to the right.

Question 35
AC Year 9
Calculate the area of the composite shape to the right.

Question 36
AC Year 9
Write 1.56 x 10^8 as a number

Question 37
AC Year 9
Expand & simplify:

(x + 9)(x - 6)

Question 38
AC Year 9
Write 0.0000922 using scientific notation

Question 39
AC Year 9
Expand & simplify:

(4x + 1)(2x - 10)

Question 40
AC Year 9
State the linear equation that matches this data

\begin{array}{|c|c|c|c|c|c|}
\hline
x & 0 & 3 & 6 & 9 & 12 \\
\hline
y & 1 & 10 & 19 & 28 & 37 \\
\hline
\end{array}

Question 41
AC Year 9
State the gradient of the line between the two points on the axes (as a simplified fraction)

Question 42
AC Year 9
State the coordinates of the mid-point between the two points on the axes

Question 43
AC Year 9
Accurately plot the parabola y = -x^2 + 5

Question 44
AC Year 9
Calculate the simple interest if a principle of $3000 is invested for 5 years at a simple interest rate of 6% p.a.

Question 45
AC Year 9
Calculate the final value if a principle of $30000 is invested for 4 years at a simple interest rate of 6% p.a.

Question 46
AC Year 9
Given that triangle ABC is similar to triangle EDF, calculate length DF if CA = 3, BC = 3 and FE = 27

Question 47
AC Year 9
In the right-angled triangle shown, what is the value of sin(F)?

Answer as a fraction

Question 48
AC Year 9
In the right-angled triangle shown, is the following statement true (T) or false (F)?

z^2 + y^2 = x^2

Question 49
AC Year 9
Simplify:

9(b^2) \times 9(a^4)(b^2)

Question 50
AC Year 9
Evaluate:

(7 - 6)^0 - 7^0