MAP4C1 Unit 0: Prerequisite Skills

/45

Name:_____

What do YOU Remember?....

Answer the following questions making sure you show ALL work and thinking.

Part A: Algebra → Exponents/Polynomials/Solving

1. **Evaluate** (find the exact number)

a) $\left(\frac{1}{4}\right)^2$ ✓

b) -3^3 ✓

c) $(6^2 - 5^2)^2$ ✓✓

d) $3x^2 - y^2$, if $x = -5, y = -4$ ✓✓

e) $(396)^0$ ✓

2. **Simplify**

a) $2^3 \times 2^2 \times 2^4$ ✓

b) $\frac{7^4 \times 7^5}{(7^4)^2}$ ✓✓✓

c) $5x(x + 2) + 6x(3x - 2)$ ✓✓✓

d) $(3x + 8y) - (5x - 7y)$ ✓✓

3. **Solve** (determine the unknown variable)

a) $5x - 8 = 2x + 7$ ✓✓

b) $4(3b + 2) = b - 14$ ✓✓✓

 Name:_____

c) $2(n+9) = -6(2n-5) + 8$ ✓✓✓✓

d) $\frac{y+6}{5} = -2$ ✓✓

Part B: Linear and Quadratic Relations

4. Given 2 lines, **A:** $y = -\frac{2}{3}x + 4$ **B:** $y = 3x - 7$

   Identify the following:

   A: slope_____ y-intercept_____ ✓✓

   B: slope_____ y-intercept_____ ✓✓

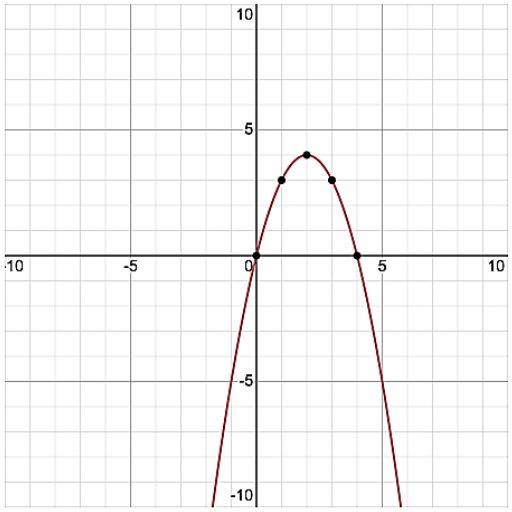
5. For the quadratic relation below, identify the vertex, zeros, y-intercept, and axis of symmetry. ✓✓✓✓

   a) Vertex _____

   b) Zeros _____

   c) Y-intercept _____

   d) Axis of Symmetry _____



6. **Determine,** algebraically, the equation of the line in slope y-intercept form passing through points (-3, -4) and (6, 8). ✓✓✓✓

Part C: Data Management and Trigonometry

7. Determine the **mean**, **median**, **mode** and **range** for the following set of data.
   $\{13, 7, 24, 19, 21, 11, 7, 24\}$ ✓✓✓✓

8. Determine the angle, rounded to one decimal place.
   a) $\sin A = 0.8910$ ✓ b) $\tan B = 1.1918$ ✓

You're done – are YOU READY for Grade 12 College Math? :)
Check off how you feel after reviewing previous concepts
