BUSINESS ANALYTICS MATH TASKS FOR PRE-SESSION OPT-OUT EXAM - 2018.08.23-26

1, ELEMENTARY ALGEBRA

1.1,
$$\frac{z^{17}}{z^3 \cdot z^5} = z^9$$

1.2,
$$6^2 \cdot 6^x = 6^6 \quad / : 6^2$$
$$6^x = 6^4 \quad / \log_6$$
$$\log_6 6^x = \log_6 6^4$$
$$x = 4$$

1.3,
$$x \cdot y = 5$$
$$x^3 \cdot y^3 = (x \cdot y)^3 = 5^3 = 125$$

1.4,
$$\frac{\sqrt{2^{10}}}{\sqrt{4^3}} = \frac{2^{10 \cdot \frac{1}{2}}}{2^{2 \cdot 3 \cdot \frac{1}{2}}} = \frac{2^5}{2^3} = 2^2 = 4$$

1.5,

(a) $x + y = y + x$ TRUE

(b) $x(y+z) = xy + xz$ TRUE

(c) $x^{y+z} \neq x^y + x^z$ FALSE

$\hookrightarrow x^y \cdot x^z$

(d) $\frac{x^y}{x^z} = x^{y-z}$ TRUE

1.6,
$$\frac{2x-5}{2} \geq 4$$
$$2x - 5 \geq 8$$
$$2x \geq 13$$
$$x \geq 6{,}5$$