

Adult High School – Registration Assessment #3 – Sample Questions

(Note: calculators are not needed)

1.) $(4x + 5)(3x - 2) = \underline{\hspace{2cm}}$

8.) $(x^5)^2 (6x^4) \div (3x^8) = \underline{\hspace{2cm}}$

2.) $w^2 - 6w - 7 = (\underline{\hspace{1cm}})(\underline{\hspace{1cm}})$

9.) $15^0 + 1^{-5} + 0^4 = \underline{\hspace{2cm}}$

3.) $m^2 + 8m + 15 = (\underline{\hspace{1cm}})(\underline{\hspace{1cm}})$

10.) $(5 \times 2)^{-2} = \underline{\hspace{2cm}}$

4.) $x^2 - 49 = (\underline{\hspace{1cm}})(\underline{\hspace{1cm}})$

11.) $(3 \times 2^2)^{-1} = \underline{\hspace{2cm}}$

5.) $2x^2 - 10x = 0 \quad x = \underline{\hspace{1cm}} \quad x = \underline{\hspace{1cm}}$

12.) $2^x = 32 \quad x = \underline{\hspace{2cm}}$

6.) $(4x + 11)^2 = 0 \quad x = \underline{\hspace{1cm}} \quad x = \underline{\hspace{1cm}}$

13.) $1000^w = 10 \quad w = \underline{\hspace{2cm}}$

7.) $(2x - 5)(x + 7) = 0$
 $x = \underline{\hspace{1cm}} \quad x = \underline{\hspace{1cm}}$

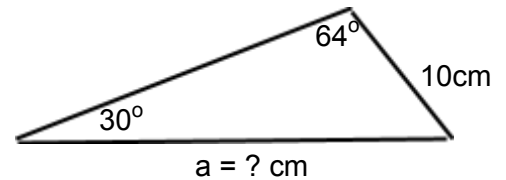
14.) $30(2)^x = 240 \quad x = \underline{\hspace{2cm}}$

15a) Solve.
 $y = 3x + 5$
 $y = 2x + 7$

b) Solve.
 $3x + 2y = 12$
 $x - y = -1$

16. Calculate "a".

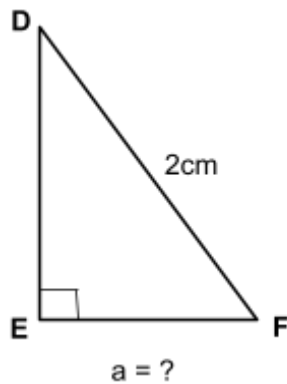
Given: $\sin 30^\circ = 0.5$
 $\sin 64^\circ = 0.9$



16.) For triangle DEF,

$\sin F = 0.6$
 $\cos F = 0.8$
 $\tan F = 0.75$

$a = \underline{\hspace{1cm}} \text{ cm}$



17.) In triangle ABC, $a = 1, b = 3, c = 4$.

Also: $a^2 = b^2 + c^2 - 2bc(\cos A)$

$\cos A = \underline{\hspace{1cm}}$

18.) Given: $f(x) = 5x^2 + 9x - 2$. y-intercept = $\underline{\hspace{1cm}}$ x-intercepts: $x = \underline{\hspace{1cm}} \quad x = \underline{\hspace{1cm}}$

19.) $\frac{\sin A}{\cos A} = \underline{\hspace{2cm}}$

20.) $\cos(A) = -1, \quad 0 \leq A \leq 360^\circ. \quad A = \underline{\hspace{2cm}}$

21.) Graph this: $y = -3\sin(x - 60^\circ) + 4$

22.) Given: $t_1 = 4$ and $t_n = 6 + t_{n-1}$.
 $t_5 = \underline{\hspace{2cm}}$