

140 Skills

Key

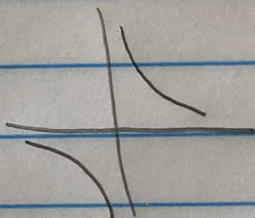
1. a) $= \sqrt{a^2 + b^2}$, NOT $a + b$!!

b) 2

c) $\frac{a}{a+b} = \frac{1}{1+b/a}$

2. $\frac{\sqrt{x+h} - \sqrt{x}}{h} \cdot \frac{\sqrt{x+h} + \sqrt{x}}{\sqrt{x+h} + \sqrt{x}} = \frac{x+h-x}{h(\sqrt{x+h} + \sqrt{x})}$
 $= \frac{1}{\sqrt{x+h} + \sqrt{x}}$

3

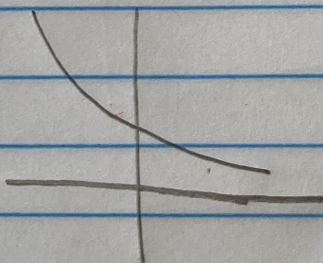


4. Slope of $3x + 4y = 10$ is $m = -\frac{3}{4}$

line is

$(y+2) = \frac{4}{3}(x-1)$

5



6. a) $A = \pi r^2$

b) $P = 2\pi r$

c) $V = \frac{1}{3}\pi r^2 h$

7. T/F?

8. $y = 0$ never occurs*, so

no x-intercepts, *negative discriminant so

9. roots of $0 = x^2 - 3x - 2$ are $\frac{3 \pm \sqrt{17}}{2}$, factorization is $(x - \frac{3+\sqrt{17}}{2})(x - \frac{3-\sqrt{17}}{2})$

10. $\frac{1}{x^2-6x+5} + \frac{1}{x+5} = \frac{1}{(x-5)(x-1)} + \frac{1}{x-5}$
 $= \frac{1 + (x-1)}{(x-5)(x-1)} = \frac{x}{(x-5)(x-1)}$