

Math 9B Practice for final -2	
1	$16^{-\frac{3}{2}}$
2	A right triangle has legs of lengths 2 and 4. Find the length of the hypotenuse.
3	$\left(\frac{8x^{12}}{y^{24}}\right)^{\frac{1}{3}}$
4	$\frac{3}{x-2} - 5 = \frac{7}{x-2}$
5	$3x - b = c$
6	Complete the square: $x^2 + 10x - 5 = 0$
7	$x^2 = -21 + 10x$
8	$x^2 + 4x - 3 = 0$
9	$-2x - 3 < 5$
10	$-3 \leq 2x + 1 < 11$
11	$ 2x - 1 = 5$
12	Find the distance between $(-1, 3)$ and $(2, 5)$
13	Find the slope of line : $2x - 3y = 1$
14	Find the x-intercept of $3x + 5y = 2$
15	$ 2x + 1 < 5$
16	Find the equation of the line through $(2, 3)$ and $(1, -4)$
17	Find the equation of the vertical line through $(10, 20)$
18	Find the equation of the line perpendicular to $y = x + 1$ and through $(2, 3)$
19	Find the radius of the circle: $x^2 + y^2 - 8x + 2y + 1 = 0$
20	Solve: $2x + 3y = -1$ and $x - 2y = 3$

Answers:

1	$\frac{1}{64}$	2	$2\sqrt{5}$
3	$\frac{2x^4}{y^8}$	4	$\frac{6}{5}$
5	$\frac{c+b}{3}$	6	$(x+5)^2 = 30$
7	$x = 7, x = 3$	8	$\frac{-4 \pm \sqrt{28}}{2} = -2 \pm \sqrt{7}$
9	$x > -4$	10	$-2 \leq x < 5$
11	$3, -2$	12	$\sqrt{13}$
13	$\frac{2}{3}$	14	$\left(\frac{2}{3}, 0\right)$
15	$(-3, 2)$	16	$y = 12x - 21$
17	$x = 10$	18	$y = -x + 5$
19	4	20	$x = 1, y = -1$