

Grade 11U Review test

Name: _____

/32

#1 Evaluate $\frac{\frac{1}{4} - \frac{-1}{3}}{\frac{-5}{12} - \frac{3}{-4}}$ _____

#2 Simplify with positive exponents

(a) $(x^3)^{-7}$ _____

(b) $\frac{[(m^3)(n^{-2})]^{-3}}{m^3 n^{-2}}$ _____

#3 Expand and simplify

(a) $-3x^3 y^2 (-6x^{-2} y^4 + 5x^4 y^{-3})$ _____

(b) $(5x - 7y)(4x + y)$ _____

(c) $(4x^5 y^3 - 3x^2 y)(3x^5 y^3 + 5x^2 y)$ _____

#4 Factor completely

(a) $x^2 - 9x + 20$ _____

(b) $2x^2 - 16x + 30$ _____

(c) $x^2 - 9$ _____

(d) $16x^2 - 25y^2$ _____

(e) $3x^2 - 13x - 10$ _____

(f) $4x^2 - 12x + 9$ _____

#5 Solve

(a) $3y - \frac{1}{2} = \frac{2}{3}$

(b) $(x-3)(2x-5) = 0$

(c) $5x^2 - 6 = -7x$

(d) $x^2 - 7 = x$

#6 Complete the square

(a) $x^2 + 2x + 1$

(b) $2x^2 - 4x + 7$

#7 Give the coordinates of the vertex for

(a) $y = 2(x-3)^2 - 1$

(b) $y = -3x^2 - 12x + 2$

#8 How does the graph of $y = \frac{1}{2}x^2$ compare to the graph of $y = x^2$?

#9 How does the graph of $y = (x-3)^2$ compare to the graph of $y = x^2$?

#10 How does the graph of $y = x^2 - 2$ compare to the graph of $y = x^2$?

#11 Evaluate

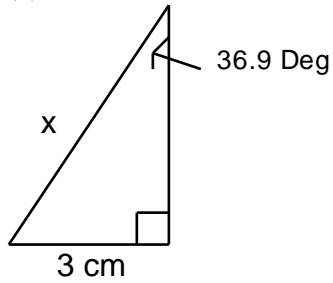
(a) $\sin 42^\circ$

(b) $\sin^{-1} 0.1$

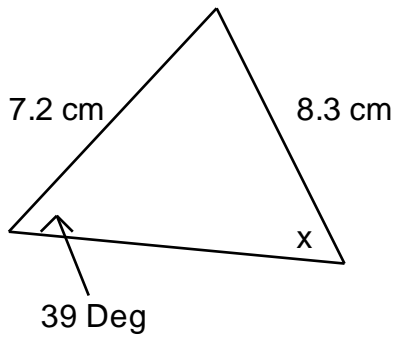
#12 Solve for x in $\tan 15^\circ = \frac{x}{22}$

#13 Solve for x in the following triangles

(a)



(b)



#14 For $\triangle CAT$ with $c = 5.2$ cm, $a = 6.8$ cm, and $\angle T = 59^\circ$, find side t.

#15 For $\triangle ABC$ with $a = 4.3$ cm, $b = 5.2$ cm, and $c = 7.5$ cm, find $\angle C$.

#16 Determine the radius of the circle
 $x^2 + y^2 = 25$

#17 Find the equation of the perpendicular
bisector of the line segment from
A(0, 3) to B(2, 5).
