| A | T | K | C |
|---|---|---|---|
| 0 | 11 | 24 | 11 |

**Work in pairs.**
**Submit 1 copy per pair**

R. Ng

Sep 5, 2008

Name: _____

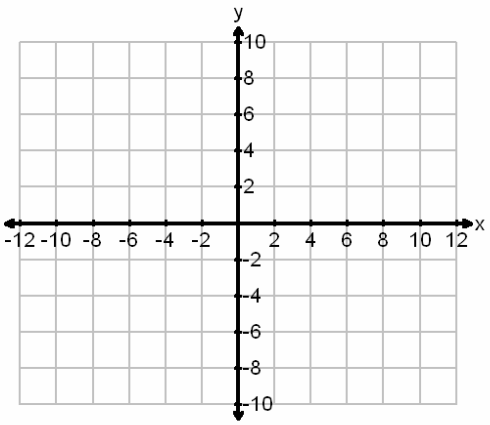
Name of partner: _____

**Grade 11 sketching functions review (assignment )**

***Please show all work on this sheet.***

**Sketch the following functions and state the domain and range.**

1. $y = |3 - x|$ [ done as example ]

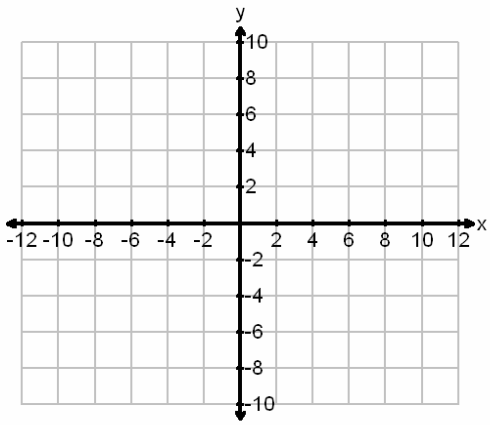



Domain : _____.

Range: _____.

Explain how this graph is different from $y = |x|$.

2. $y = \sqrt{3 - x}$ [ 1 C to graph ]

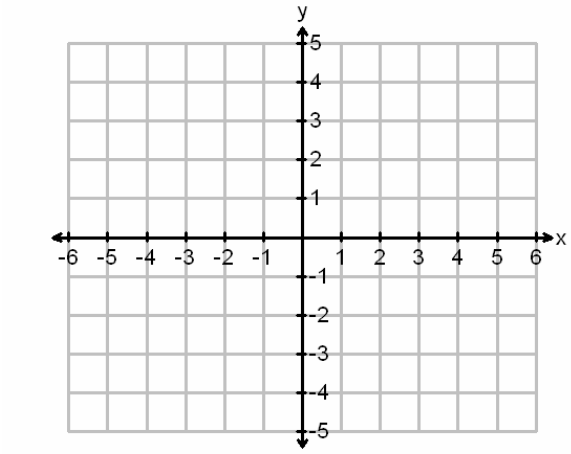



Domain : _____. [ 1 K ]

Range: _____. [ 1 K ]

Explain how this graph is different from $y = \sqrt{x}$. [ 1 C ]

3. $y = -\sqrt{4x^2 - 36}$ [ 1 C for graph ]




Domain : _____ . [ 1 K ]

Range: _____ . [ 1 K ]

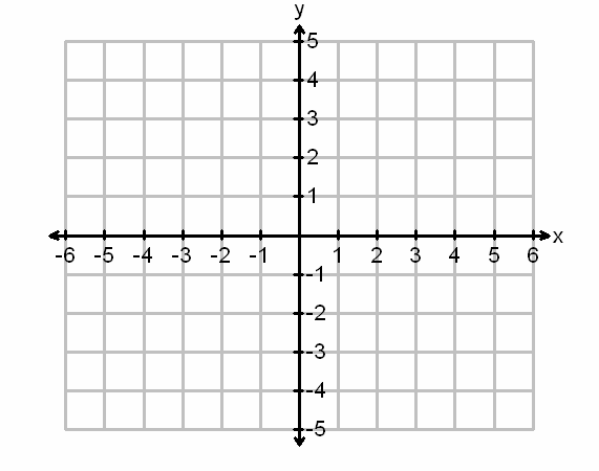
What shape is this graph ? [ 1 K ]

_____ .

Draw $y = \sqrt{x^2 - 1}$ on the grid in a different color. [ 1 C ]

Explain how is this graph different from $y = \sqrt{x^2 - 1}$ in terms of transformations ? [ 3 T ]

4. $y = \sqrt{36 - x^2}$ [ 1 C for graph ]




Domain : _____ . [ 1 K ]

Range: _____ . [ 1 K ]

What shape is this graph ? [ 1 K ]

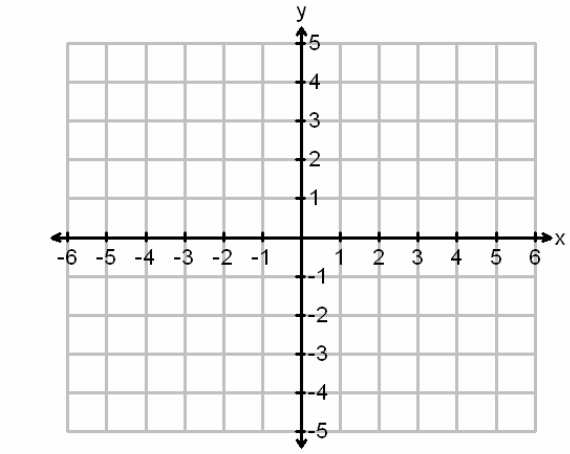
_____ .

Draw $y = \sqrt{36 + x^2}$ on the grid in a different color. [ 1 C ]

Explain how is this graph different from $y = \sqrt{36 + x^2}$ in terms of transformations ? [ 3 T ]

What is the domain and range for $y = \sqrt{36 + x^2}$ ? [ 2 K ]

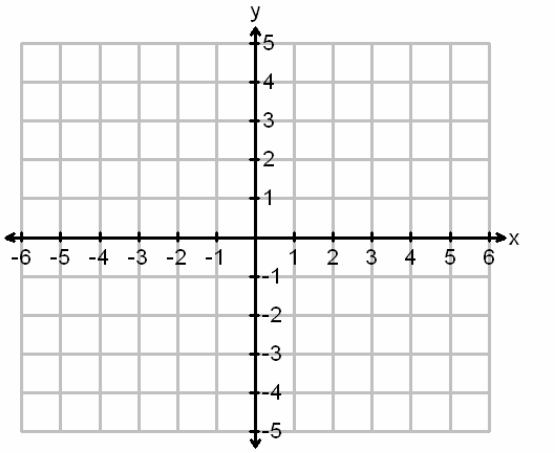
5. $y = -3\sqrt{25-x^2}$ [ 1 C for graph ]




Domain : _____ . [ 1 K ]

Range: _____ . [ 1 K ]

6. $y = \sqrt{25-x^2}$ [ 1 C for graph ]



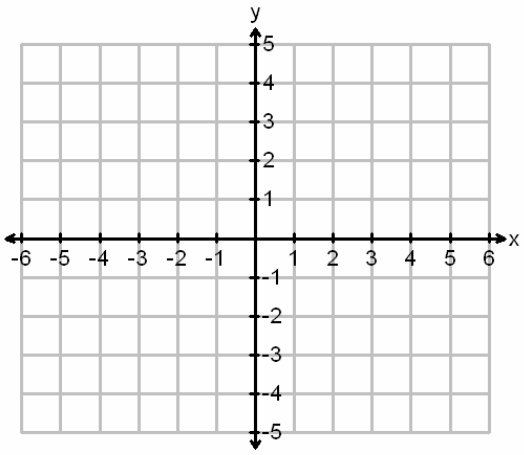

Domain : _____ . [ 1 K ]

Range: _____ . [ 1 K ]

Explain how is this graph different from $y = \sqrt{25-x^2}$ in terms of transformations ? [ 3 T ]

Based on your answer above, has the domain and range changed for $y = \sqrt{25-x^2}$ compared to $y = -3\sqrt{25-x^2}$ ? Why ? [ 2 T ]

7. $y = (2x-1)(3-x)$ [ 1 C for graph ]




What is the shape of this graph ? [ 1 K ]

_____.

Domain : _____. [ 1 K ]

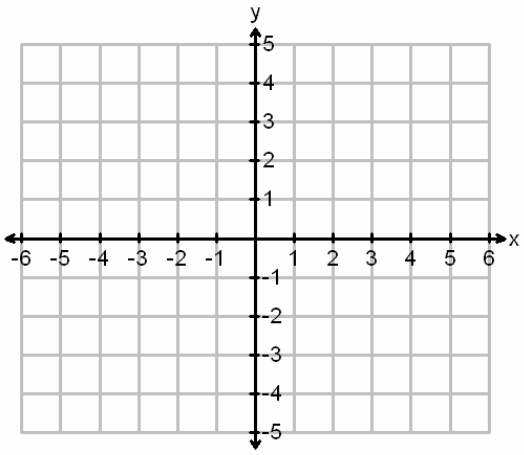
Range: _____. [ 1 K ]

For question 7:

Show how you would find the vertex of this graph then solve for the vertex. [ 3 K ]

Show how you would calculate the discriminant for this graph and solve for the discriminant. [ 2 K ]

8. $y = 3x^2 - 4x + 10$ [ 1 C for graph ]




Domain : _____. [ 1 K ]

Range: _____. [ 1 K ]

For question 8:

Solve for the discriminant. [ 2 K ]

What does the value of the discriminant tell you ? [ 1 C ]