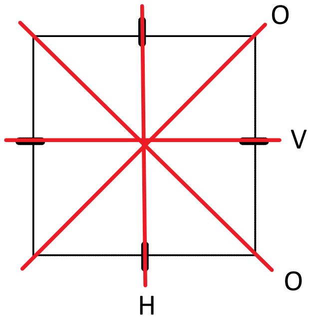
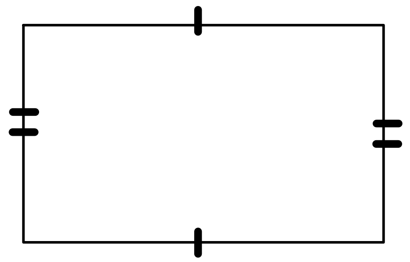
M9 - 1.1 - Draw Lines of Symmetry HW

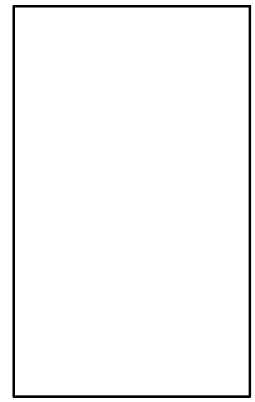
Draw lines of symmetry and label type H/V/O.

Square

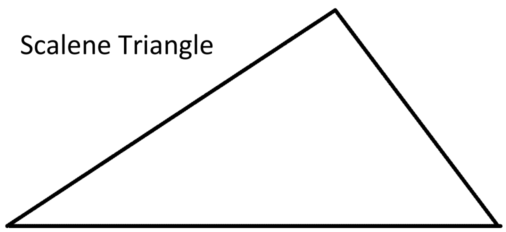




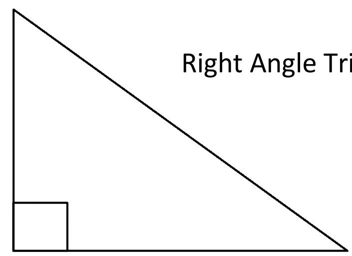
Rectangles



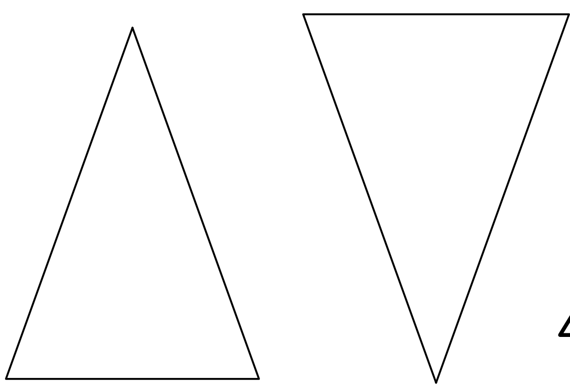
Scalene Triangle



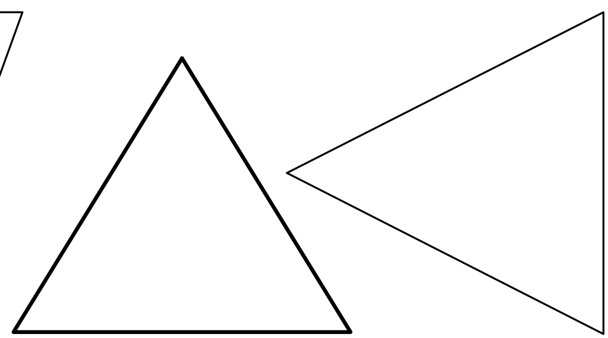
Right Angle Triangle



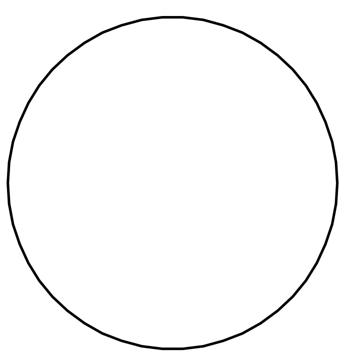
Isosceles Triangle



Equilateral Triangle



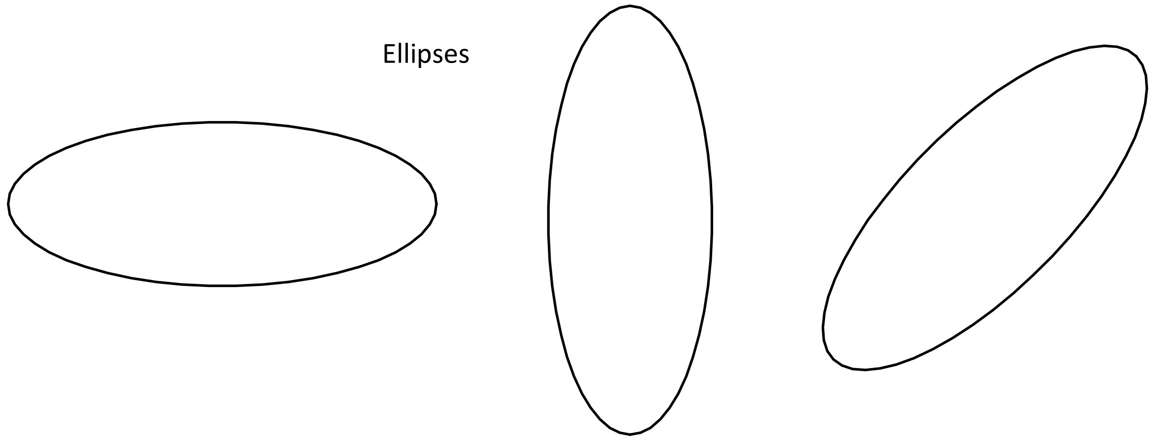
Circle



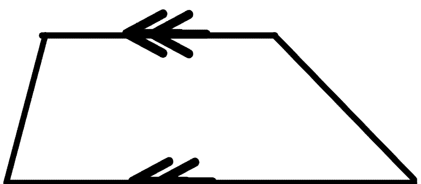
M9 - 1.1 - Draw Lines of Symmetry HW

Draw lines of symmetry and label type H/V/O.

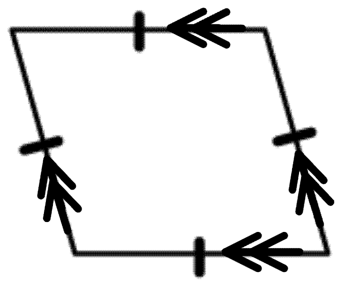
Ellipses



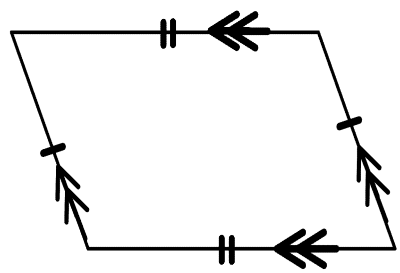
Trapezoid



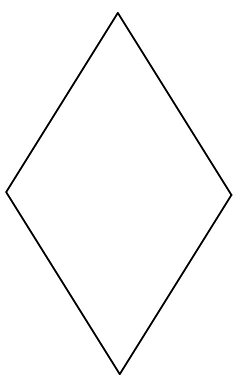
Rhombus



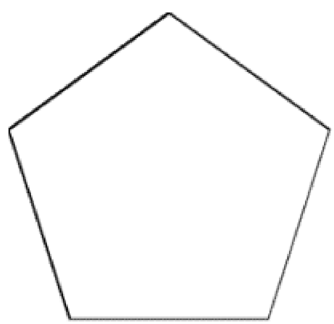
Parallelogram



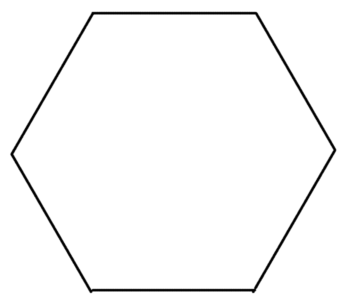
Kite



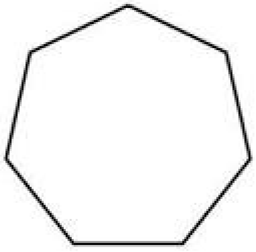
Pentagon



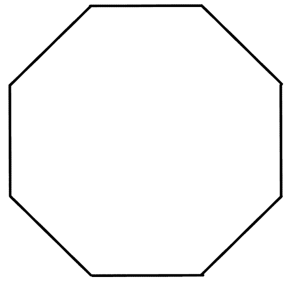
Hexagon



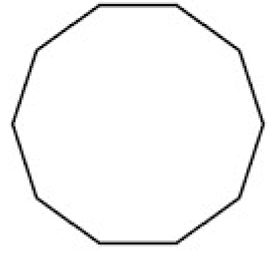
Heptagon



Octagon



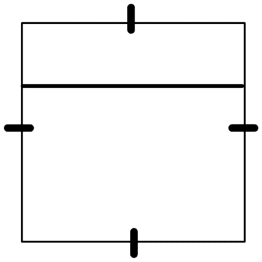
Decagon



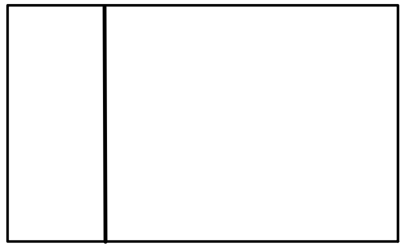
M9 - 1.1 - Draw Lines of Symmetry HW

Draw lines of symmetry and label type H/V/O.

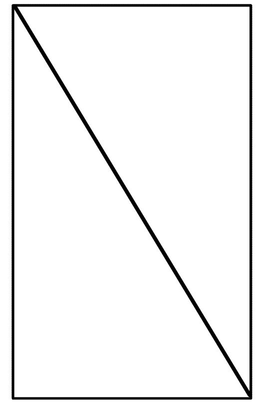
Square



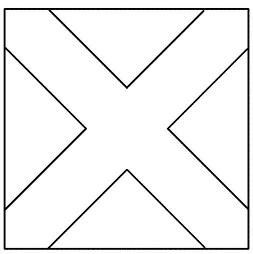
Rectangle



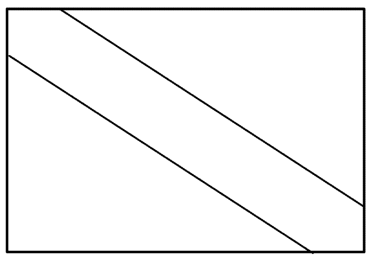
Rectangle

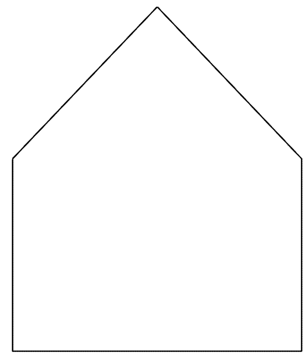


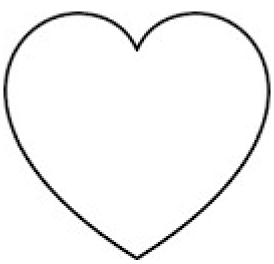
Square



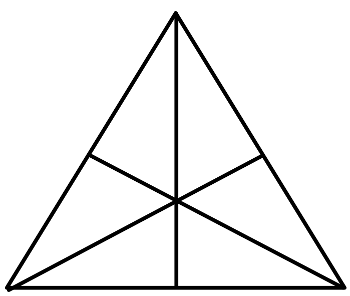
Rectangles

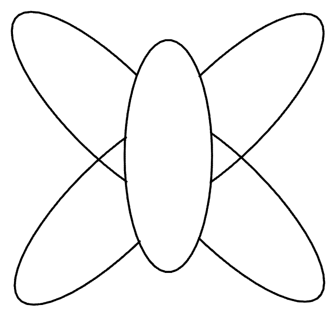


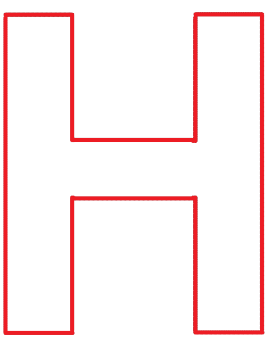




Equilateral Triangle



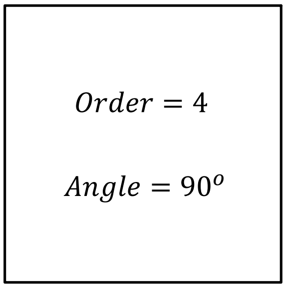




M9 - 1.1 - Rotational Symmetry/Angle of Rotation HW

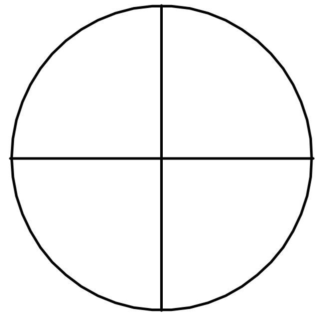
What is the order of and angle of rotation of the following?

Square

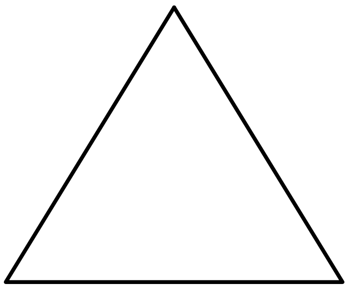


Rectangle

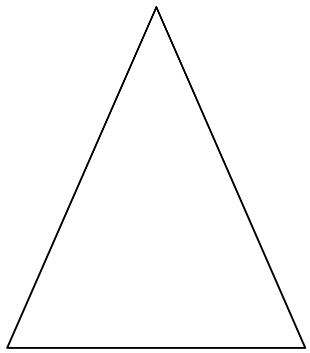
Circle



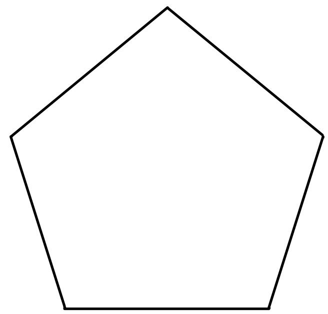
Equilateral Triangle



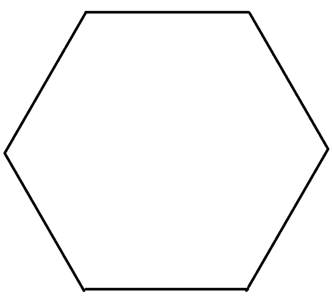
Isosceles Triangle



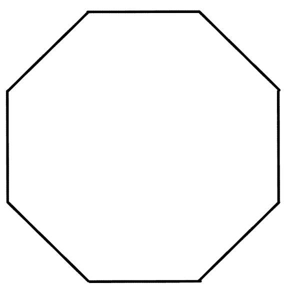
Pentagon



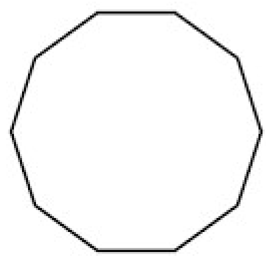
Hexagon

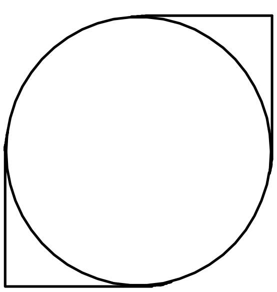


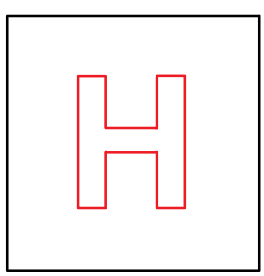
Octagon

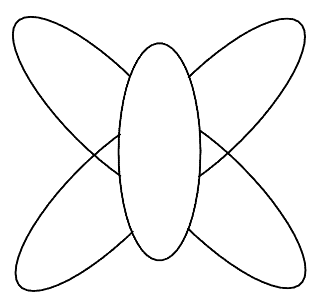


Decagon









M9 - 2.1 - Rounding HMK

Round the following to the hundreds place

123	298	356	3923	200	24	992

Round the following to the tens place

57	23	63	87	652	565	99

Round of the following to the ones place

2.3	10.2	3.5	15.7	7.7	234.8	199.9

Round the following to the tenths place

0.45	2.61	3.789	0.05	12.123	9	3.99

Round the following to the hundredths place

.005	1.234	20.235	200.007	2.001	4.876	5.099

M9 - 2.2 - Scientific Notation HMK

Write in Standard Notation

4.02×10^3

8.124×10^6

94×10^3

234.68×10^7

Write in Scientific Notation

2670000

605

5490

1005

1000000

2700

347

53

57000

0.002

0.0045

0.32

0.0056

0.034

2.34

0.00056

0.00000023

0.1

Write in Scientific Notation and Standard Form

54.6×10^2

0.046×10^{-3}

345×10^{-3}

0.00012×10^9

M9 - 2.3 - Real/Ir/Rational/Integers/Whole/Natural HMK

Write the following numbers in their best appropriate place.

Real Numbers

$\sqrt{7}$ $\quad \pi$ $\quad \sqrt{4}$ $\quad \frac{3}{4}$ $\quad \sqrt{0.16}$ $\quad \frac{1}{3}$ $\quad -2.1476..$ $\quad 6$

$\frac{1}{7}$ $\quad e$ $\quad .34256\ldots$ $\quad \sqrt{4}$ $\quad -2$ $\quad 0$ $\quad 100$ $\quad \sqrt[3]{10}$

$0.\overline{3}$ $\quad \sqrt[3]{8}$ $\quad 8.1$ $\quad 2$ $\quad -8$ $\quad -2$ $\quad \frac{1}{9}$ $\quad \sqrt[3]{\frac{8}{27}}$

Irrational Numbers

Rational Numbers

Integers

Whole Numbers

Natural Numbers

M9 - 3.1 - Add/Subract Exponent Laws HW

Write each product as a repeated multiplication then as a single exponent (power).

$3^2 \times 3^3 = (3 \times 3) \times (3 \times 3 \times 3) = 3^5$

$5^3 \times 5^2 =$

$2^3 \times 2^2 =$

$7^3 \times 7^4 =$

$9^4 \times 9^5 =$

Write each product as a single exponent (power). Show your work!. Without Brackets.

$3^2 \times 3^3 = 3^{2+3} = 3^5$

$7^3 \times 7^4 =$

$(-3)^2 \times (-3)^3 =$

$5^3 \times 5^4 =$

$3^7 \times 3^2 =$

$(-4)^3 \times (-4)^5 =$

$4^7 \times 4^2 =$

$8^2 \times 8 =$

$(-2)^3 \times (-2)^5 =$

Write each quotient as a repeated multiplication in fraction form then as a single power (exponent).

$3^4 \div 3^2 = \dfrac{\cancel{3} \times \cancel{3} \times 3 \times 3}{\cancel{3} \times \cancel{3}} = 3^2$

$3^5 \div 3^3 =$

$4^4 \div 4^2 =$

$6^2 \div 6^2 =$

$2^3 \div 2^2 =$

$(-4)^3 \div (-4) =$

Write each quotient of powers as a single power (exponent). Show your work.

$3^4 \div 3^2 = 3^{4-2} = 3^2$

$2^4 \div 2^2 =$

$(-2)^6 \div (-2)^3 =$

$4^7 \div 4^4 =$

$8^6 \div 8^4 =$

$(-3)^5 \div (-3)^3 =$

$\dfrac{3^5}{3^2} =$

$\dfrac{8^4}{8^2} =$

$\dfrac{5^3}{5^2} =$

$\dfrac{6^5}{6^2} =$

$\dfrac{4^2}{4} =$

$\dfrac{(-3)^4}{(-3)^2} =$

M9 - 3.2 - Multiply Exponent Laws HW

Write each product as a repeated multiplication then as a single exponent (power).

$(3^3)^2 = (3 \times 3 \times 3)^2 = (3 \times 3 \times 3) \times (3 \times 3 \times 3) = 3^6$

$(5^2)^3 =$

$(7^3)^2 =$

Write the following as a single power (exponent). Show your work.

$(4^3)^2 = 4^{3\times2} = 4^6$ $\qquad (2^2)^3 =$ $\qquad (5^2)^2 =$

$(8^2)^5 =$ $\qquad (7^3)^4 =$ $\qquad (9^5)^2 =$

Write as a multiplication of two powers.

$[7 \times 2]^2 = 7^2 2^2$ $\qquad [3 \times 2]^2 =$ $\qquad [5 \times 3]^2 =$ $\qquad (6 \times 7)^3 =$

Write the following as a single power.

$(7 \times 2)^2 = 14^2$ $\qquad [3 \times 2]^2 =$ $\qquad [5 \times 3]^2 =$ $\qquad (6 \times 7)^3 =$

Write as a division of two powers.

$\left(\frac{3}{5}\right)^3 =$ $\qquad \left(\frac{5}{7}\right)^2 =$ $\qquad \left(\frac{9}{4}\right)^2 =$ $\qquad \left(\frac{1}{2}\right)^2 =$

Multiply the exponents.

$[7x]^2 = 7^2x^2$ $\qquad [3x]^2 =$ $\qquad [5x^3]^2 =$ $\qquad 2[3x^4]^2 =$

M9 - 3.3 - Multiplication-Exponential Form (+/-) HW

Write the following in exponential form, then evaluate if possible.

$2 \times 2 \times 2 \times 2 \times 2 = 2^5 = 32$

$4 \times 4 \times 4 =$

$5 \times 5 =$

$3 \times 3 \times 3 \times 3 =$

$1 \times 1 \times 1 \times 1 =$

$9 \times 9 =$

$6 \times 6 \times 6 =$

$x \times x =$

$a \times a \times a =$

$5 = 5^1 = 5$

$6 =$

$(3)(3)(3) = (3)^3 = 27$

$(5)(5)(5) =$

$(x)(x) =$

$-2 \times -2 \times -2 = (-2)^3 = -8$

$-3 \times -3 \times -3 =$

$-5 \times -5 =$

$-6 \times -6 =$

$-5 \times -5 \times -5 \times -5 =$

$-6 \times -6 \times -6 \times -6 =$

$(-2) \times (-2) \times (-2) = (-2)^3 = -8$

$(-2) \times (-2) \times (-2) \times (-2) =$

$(-m) \times (-m) \times (-m) =$

$(-a)(-a) =$

$-4 \times 4 \times 4 = -4^3 = -64$

$-5 \times 5 =$

$-9 \times 9 \times 9 \times 9 =$

$-(-2) \times (-2) \times (-2) = -(-2)^3 = 8$

$-(-2) \times (-2) \times (-2) \times (-2) =$

$-(-3)(-3) =$

M9 - 3.3 - Exponential-Multiplication Form (+/-) HW

Write as a repeated multiplication, then evaluate.

$4^2 = 4 \times 4 = 16$

$2^3 =$

$3^2 =$

$2^5 =$

$3^3 =$

$2^4 =$

$2^2 =$

$5^4 =$

$4^4 =$

$3^4 =$

$-3^4 = -3 \times 3 \times 3 \times 3 = -81$

$-5^2 =$

$(-2)^4 = (-2)(-2)(-2)(-2) = 16$

$(-2)^2 =$

$(-1)^4 =$

$(-5)^3 =$

$(-2)^3 =$

$-(3)^4 = -(3)(3)(3)(3) = -81$

$-(1)^3 =$

$-(2)^2 =$

$-(2)^3 =$

$(-2^3) = (-2 \times 2 \times 2) = -8$

$(-2^4) =$

$-(-1)^4 = -(-1)(-1)(-1)(-1) = -1$

$-(-2)^3 =$

$-(-3)^3 =$

$-(-5)^4 =$

State whether Positive or Negative

$-4^{even} = +$

$-3^{odd} =$

$(-3)^{odd} =$

$(-6)^{even} =$

$-(-2)^{odd} =$

$-(-5)^{even} =$

M9 - 3.3 - Perfect Change of Base HW

Write in squared exponential form.

$4 = 2^2$	$49 =$	$169 =$
$36 =$	$9 =$	$144 =$
$100 =$	$121 =$	$196 =$
$25 =$	$225 =$	$400 =$

Write in cubed exponential form.

$27 = 3^3$	$64 =$	$512 =$
$8 =$	$343 =$	$1 =$
$125 =$	$216 =$	$729 =$
	$1000 =$	

Write to 4th power in exponential form.

$1 = 1^4$	$81 =$	$1296 =$
		$625 =$
$256 =$	$2401 =$	
		$10000 =$
$16 =$	$6561 =$	

Write with different bases in exponential form.

$16 = 2^4$	$64 =$	$81 =$	$256 =$	$4096 =$
$16 = 4^2$	$64 =$	$81 =$	$256 =$	$4096 =$
			$256 =$	$4096 =$
				$4096 =$

M9 - 3.3 - Imperfect Change of Base HW

Change to Exponential Form with Lowest Bases

$12 = 3 \times 2^2$

$18 =$

$20 =$

$24 =$

$28 =$

$32 =$

$40 =$

$44 =$

$45 =$

$48 =$

$50 =$

$52 =$

$54 =$

$56 =$

$60 =$

$63 =$

$68 =$

$72 =$

$75 =$

$76 =$

$76 =$

$80 =$

$84 =$

$88 =$

$90 =$

$96 =$

$98 =$

$108 =$

$128 =$

$135 =$

$162 =$

$189 =$

$192 =$

M9 - 3.3 - Lowest Base Change of Base HW

Change to Exponential Form with Lowest Bases

$16^4 =$
$(16)^4$
$(2^4)^4$
2^{16}

$25^2 =$

$169^3 =$

$125^4 =$

$64^2 =$

$16^4 =$

625^2

$1024^2 =$

$81^3 =$

$27^3 =$

$49^5 =$

$243^2 =$

18^2
$(3^2 \times 2^1)^2$
$3^4 \times 2^2$

$12^3 =$

$100^3 =$

$72^2 =$

$60^3 =$

$36^5 =$

$108^3 =$

$76^2 =$

$128^4 =$

M9 - 3.4 - Negative Exponents HW

Write with positive exponents

$2^{-3} = \frac{1}{2^3}$ $\boxed{2^{-3} = 0.125 = \frac{1}{2^3} \checkmark \text{ Check Answer}}$ $3^{-4} =$ $6^{-2} =$

$5^{-2} =$ $9^{-2} =$ $3^{-3} =$

$\frac{1}{2^{-3}} =$ $\frac{1}{7^{-2}} =$ $\frac{1}{4^{-1}} =$

$\frac{1}{3^{-4}} =$ $\frac{1}{8^{-5}} =$ $\frac{1}{6^{-9}} =$

$2x^{-2} =$ $\frac{1}{2x^{-2}} =$

$2^{-3}x =$ $\frac{1}{2^{-3}x} =$

$2^{-3}x^{-2} =$ $\frac{1}{2^{-3}x^{-2}} =$

$\frac{5}{2y^{-3}} =$ $\frac{x^2}{y^{-3}} =$

$\frac{5}{3^{-2}y^{-3}} =$ $\frac{x^{-2}}{y^{-3}} =$

$\frac{4}{(2x)^{-2}} =$ $\frac{a^{-2}}{(2y)^{-4}}$

Write with negative exponents

$2^3 =$ $\frac{1}{2^3} =$ $\frac{1}{2x^3} =$ $\frac{2}{x^3} =$

M9 - 3.4 - Negative Exponents HW

Write with Negative exponents

$\frac{6^2}{6^4} =$ $\frac{9^2}{9^3} =$ $5^4 \div 5^5 =$

$\frac{7}{7^2} =$ $\frac{7}{7^2} =$ $2^2 \div 2^5 =$

Write with Positive exponents

$\frac{6^2}{6^4} =$ $\frac{9^2}{9^3} =$ $5^4 \div 5^5 =$

$\frac{7}{7^2} =$ $\frac{7}{7^2} =$ $2^2 \div 2^5 =$

Write with Positive exponents

$\left(\frac{2}{3}\right)^{-2} =$ $\left(\frac{5}{7}\right)^{-4} =$ $\left(\frac{1}{2}\right)^{-3} =$

Write with Positive exponents

$\frac{5^{-3}}{5^2} =$ $\frac{6^2}{6^{-1}} =$ $8^3 \div 8^{-4} =$

$\frac{9^{-4}}{9^{-3}} =$ $\frac{4}{4^2} =$ $7^{-2} \div 7^{-5} =$

Write with Positive exponents

$\frac{2x^{-2}}{y^{-4}} =$ $\frac{5x^2}{y^{-4}} =$ $\frac{5x^{-2}}{2y^4} =$

$\frac{4a^{-3}}{b^{-4}} =$ $\frac{a^{-2}}{5b^{-5}} =$ $\frac{(6a)^{-2}}{b^5} =$

M9 - 3.4 - Change of Base Negative Exponents HW

Change to positive exponents with lowest base.

$8^{-2}=$

$\frac{1}{8^2}$ Write with Positive Exponents

$\frac{1}{(2^3)^2}$ Change of Base

$\frac{1}{2^6}$ Multiply Exponents

OR

$8^{-2}=$

$(2^3)^{-2}$ Change of Base

2^{-6} Multiply Exponents

$\frac{1}{2^6}$ Write with Positive Exponents

$$\boxed{8^{-2} = 0.015625 = \frac{1}{2^6} \checkmark \quad \text{Check Answer}}$$

Change to negative exponents with lowest base.

$\frac{1}{2}=$

$\frac{1}{2^1}$ Change of Base

2^{-1} Multiply Exponents

Write with Positive Exponents

Negative Laws

$$\boxed{\frac{1}{2^1} = 2^{-1}}$$

$\frac{1}{81}=$

$\frac{1}{3^4}$ Change of Base

Negative Laws

3^{-4} Multiply Exponents

Write with Positive Exponents

$$\boxed{\frac{1}{9} = \frac{1}{3^2} = 3^{-2}}$$

$\left(\frac{1}{25}\right)^2=$

$\left(\frac{1}{5^2}\right)^2$ Change of Base

$(5^{-2})^2$ Negative Laws

5^{-4} Multiply Exponents

OR

$\left(\frac{1}{25}\right)^2=$

$\frac{1^2}{25^2}$ Multiply Exponents

$\frac{1}{(5^2)^2}$ Change of Base

$\frac{1}{5^4}$ Multiply Exponents Again

5^{-4} Negative Laws

Change to positive exponents with lowest base.

$27^{-2}=$ $\quad 25^{-2}=$ $\quad 64^{-1}=$

$16^{-3}=$ $\quad 4^{-3}=$ $\quad 243^{-2}=$

Change to negative exponents with lowest base.

$\left(\frac{1}{9}\right)^3=$ $\quad \left(\frac{1}{2}\right)^{-4}=$ $\quad \left(\frac{4}{9}\right)^{-3}$

M9 - 3.5 - Combo Exponents Laws HW

Simplify

$\frac{2^3 \times 2^5}{2^2} =$

$\frac{4^8 \times 2^5}{32} =$

$\frac{8^3 \times 2^{10}}{256 \times 4^2} =$

$\frac{2^8 \times 2^{-3}}{16} =$

$\frac{8^{-1} \times 32^4}{64^{-2}} =$

$\frac{2^{-1} \times 16^{-4}}{128^{-2}} =$

Simplify

$\frac{(6x^5y^2)(5xy^3)}{(2x^4y^2)} =$

$\frac{(6x^5y^3)^{-3}(4x^2y^4)^3}{(2x^3y)^{-2}} =$

M9 - 3.6 - Exponents Negative Brackets Notes HW

Simplify without Brackets

$(-3x^2)^2 =$ $(-4x^{-3})^3 =$ $(-7x^2)^{-2} =$

$(-5x^3)^3 =$ $-(-4x^2)^4 =$ $-2(-5x^2)^{-3} =$

Simplify without Brackets

$\left(\frac{4x^3}{2x^2}\right)^5 =$ $\left(\frac{2x^5}{7x^6}\right)^2 =$ $\left(\frac{1x^4}{2x^3}\right)^{-2} =$

$\left(\frac{8x^4}{2x^2}\right)^5 =$ $\left(\frac{3x^5}{5x^{-2}}\right)^3 =$ $\left(\frac{3x^{-4}}{2x^3}\right)^{-2} =$

M9 - 5.1 - Algebraic Expressions HW

State the Coefficient and the Degree of the term.

$-2x^2$ $-3x^2y$ $5x$ 2 $-3xy^2z$ $\sqrt{5}x$ $2^{-4}xy$ $1xy$

Coefficient:

Degree:

State the degree of the Polynomial, the Leading Term and the Leading Coefficient.

$5x - 3x^2$ $x^3 + 4x^2$ $xy - 2xy^2 + 4$

Degree:

Leading Term:

Leading Coefficient:

Circle the following polynomials and state the type or state why not.

$2x + 5$ $2x^{-2}$ $x^2 - 2x + 1$ $\sqrt{3x} + 9$

$5x^2y + \frac{3}{x}$ 6 $\sqrt{5}x + 3$ e^{x^2}

$6x + 2$ $x^3 + 3x^2 - 2x + 1$ $y = logx + 2$ 0

M9 - 5.2 - Combining Like Terms HW

Combine the like terms

$x + x = 2x$

$x + 2x =$

$a + 4a =$

$3x - 2x =$

$2a - 2a =$

$x + 2 =$

$-5m - 2m =$

$2xy - xy =$

$x + 1 =$

$n + 3n =$

$6a - 7a =$

$ab + ba =$

$x^2 + x^2 =$

$2x^2 - x^2 =$

$2y^2 + 3y^2 =$

$x^2 - x =$

$x^2 + 2x^2 =$

$-5w^2 - 2w^2 =$

Circle, square, or cloud, then combine like terms in ascending degree order.

$2 + x + 3 =$

$x + 5$

$3 + x + 6 =$

$2 - x - 3 =$

$3n + n - 2n =$

$4 - 2 - x^2 =$

$n - 4 + 2 =$

$4x^2 + 3x + 2x =$

$2x + 1 - 3x =$

$x^2 + x + 2$

$3x + \boxed{x^2} + 2x + \boxed{2x^2} =$

$3x^2 + 5x$

$5x - 2 + x - 3 =$

$3x - 3 - x + 5 =$

$y + 2y + 3 + 5 + y =$

$-3x^2 - 4x + x^2 - 2x + 4 =$

$3x^2 + 2x + 2 + 3x + 5 + x^2 =$

M9 - 5.3 - Multiplying Monomials HW

Multiply the following polynomials.

$6 \times 2a = 12a$

$5m \times 2m =$

$2x \times 3x^2 =$

$-4 \times 3m =$

$-5n \times -2n =$

$-5x^3 \times 2x^2 =$

$3x^2 \times 6 =$

$a \times a \times a =$

$x^3 \times 3x^2 =$

$a \times a =$

$2a \times a =$

$(-5x)(3x) =$

Multiply the following polynomials.

$3(2a) =$

$x^2(-x) =$

$2ab^3(ab^2) =$

$-2a(-3) =$

$2x(5x) =$

$3ab^2(2b) =$

$-5x(-2x) =$

$-3a^2(2a) =$

$-2a^2b(-b^2) =$

$3xy \times 9xz =$

$5x^2y^3 \times 9xy^3 =$

$-2x^4y^2 - 3x^{-1}y^3 =$

$5x^2 \times yz =$

$5^2 \times yz =$

$5^2 \times 3^2xyz =$

M9 - 5.3 - Dividing Monomials HW

Divide the following polynomials.

$6a \div 2 = 3a$

$8m \div 2m =$

$9x^2 \div 3 =$

$12x \div -4x =$

$-6m \div 3 =$

$-10n \div -2n =$

$(-15x) \div (3x) =$

$-8m^2 \div (-2m) =$

$18x^3 \div 3x^2 =$

$-4x^3 \div 2x^2 =$

$x \div x =$

$\frac{6a}{2} =$

$\frac{5}{5} =$

$\frac{1}{1} =$

$\frac{6x}{2x} =$

$\frac{4a^2}{a} =$

$\frac{6a^2}{2a} =$

$\frac{a}{a} =$

$\frac{x^4}{2x^2} =$

$\frac{12x^3}{4x^2} =$

$\frac{-4x}{-10x^2} =$

$\frac{2a}{3a^2} =$

$\frac{15st^2}{t} =$

$\frac{4st}{-6st} =$

$\frac{-2st^2}{4s^2t^2} =$

$\frac{10b^2c}{5c^2} =$

$\frac{3x^2}{15y} =$

$\frac{24x^2y^3}{16x^3y} =$

$\frac{ab^2}{-3ac} =$

$\frac{-2x^2}{-x} =$

$\frac{-2x}{x^2} =$

M9 - 5.3 - Dividing Polynomials W=HW

Separate into an addition/subtraction of fractions and simplify.

$\frac{4x+2}{2} = \frac{4x}{2} + \frac{2}{2} = 2x+1$

$\frac{6x-3}{3} =$

$\frac{-5x+10}{2} =$

$\frac{4x+2}{-2} =$

$\frac{6x-3}{-3} =$

$\frac{-5x+10}{-2} =$

$\frac{-6x-6}{3} =$

$\frac{5x-10y}{5} =$

$\frac{6x+8y}{-2} =$

$\frac{4x^2-8x-16}{4} =$

$\frac{6x^2-12x+18}{-6} =$

$\frac{-5x^2-10x+20}{-5} =$

$\frac{5x^2-10xy+20}{-5x} =$

$\frac{5x^2+x}{x} =$

$\frac{3x^2-x}{x} =$

$\frac{-5x^2-3y}{x} =$

$\frac{4x^2+2x}{-x} =$

$\frac{8x^2+4x}{2x} =$

$\frac{-9x-3y}{3x} =$

$\frac{-10x^2-5x}{-5x} =$

$\frac{10x^2-7x}{5x} =$

$\frac{9x^3+6x^2-3x}{3x} =$

$\frac{3x-6}{x^2} =$

$\frac{5x-7}{-2x} =$

$\frac{30x^2-20xy+15y^2}{x} =$

$\frac{2x^2-6xy+4y^2}{2y^2} =$

$\frac{3xy-4x+5x^2}{-x} =$

$\frac{5ab-10b^2+3a}{ab} =$

M9 - 5.4 - Distribution HW

Distribute the following by multiplying the number in front/behind of the brackets by both numbers inside the brackets.

$2(x+5) =$

$5(3-x) =$

$-3(x+7) =$

$4(x+5)$

$-9(x+3) =$

$(x-2)7=$

$6(3x+4) =$

$-4(7x+4) =$

$-2(9x+11) =$

$-8(3x-7) =$

$(6x-9)3 =$

$5(3x-8) =$

$x(3x+7) =$

$4x(x-2) =$

$(7x-3)x =$

$3x^2(3x-5) =$

$-7x(3+8x) =$

$5x(6x-3x) =$

$-2(4x^2+8x-2)$

$6(2x^2-4x+1) =$

$9(2x^2+3x+4) =$

$7x(2x^2+5x+7) =$

$-(4x^3+3x)2x =$

M9 - 5.4 - FOIL HW

$(x+3)(x+2)$

$(n+5)(n+9)$

$(x+6)(x+3)$

$(x+2)(x+12)$

$(x+11)(x+9)$

$(p+5)(p+7)$

$(m-3)(m-8)$

$(x-14)(x-2)$

$(x-12)(x-3)$

$(x-6)(x+6)$

$(n-3)(n+3)$

$(x+4)(x-4)$

$(x+5)(x-5)$

$(p-12)(p+6)$

$(x+9)(x-7)$

$(y-m)(y+2)$

$(x-9)(x+z)$

$(x+y)(x-y)$

$(6x+3)(x+3)$

$(5q-4)(q-7)$

$(6x+7)(x-6)$

$(3a-4)(a+2)$

$(6x+y)(x-2y)$

$(9c-d)(d+7)$

M9 - 5.4 - Dist/Foil/Combine HW

$2(x+4)$ $\quad$ $2x(x^2+2x-3)$ $\quad$ $-2x(x+1)$

Distribution

$(x+2)(x-4)$ $\quad$ $-(2x-5)(x+3)$ $\quad$ $(x+4)(x-4)$ $\quad$ $(x-2)^2$

(Foil)
Distribute
Combine

$(x-2)(x^2-4x+1)$ $\quad$ $(2x+1)(x-3)(x+4)$ $\quad$ $(x-2)^3$

Foil
Triple Foil
Combine

$(x+2)+(x-5)$ $\quad$ $(2x+2)-(x-5)$

Distribute
Combine

$(x-1)+(x+2)(x-3)$ $\quad$ $(x+5)(x-2)-(x+3)$

Foil
Distribute
Combine

$(x+3)-(x-4)(x+1)$ $\quad$ $(x+8)-(x+2)(x-1)$

Foil
Distribute
Combine

M9 - 5.4 - Dist/Foil/Combine HW

$2x^2(x-2)$

$-x(x^2-5x+2)$

$2x^3(1-x)$

$(1-x)(2+x)$

$(3-x)(x-4)$

$2(x+3)(x-4)$

$-2x(x+5)(x-2)$

$(x+2)(x+2)$

$3(x-2)^2$

$6+(x-3)$

$5-(x+4)$

$2(x-1)-3(x+2)$

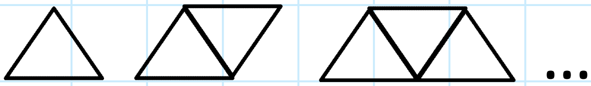
$3x(x+2)-2x(x-5)$

$(x-2)(x+3)-(x-2)(x+3)$

$3x(x+1)(x-3)-2(x+4)(x-3)$

M9 - 6.1 - Patterns Word Problems HW

The following Diagrams are made out of Toothpicks.



Draw another Diagram.

Create a Table of Values for Diagrams 1-5.

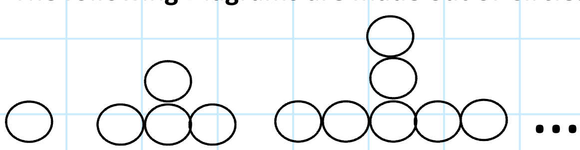
Write Let Statements

Find the Equation

How many Toothpicks in the 8th Diagram?

Which Diagram has 21 Toothpicks?

The following Diagrams are made out of Circles.



Draw another Diagram.

Create a Table of Values for Diagrams 1-5.

Write Let Statements

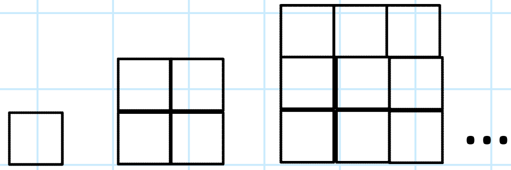
Find the Equation

How many Toothpicks in the 7th Diagram?

Which Diagram has 31 Circles?

M9 - 6.1 - Patterns Word Problems HW

The following Diagrams are made out of Squares.



Draw another Diagram.

Create a Table of Values for Diagrams 1-5.

Write Let Statements

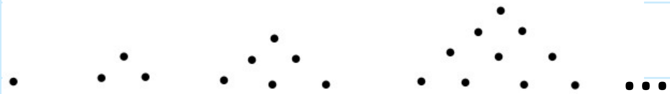
Find the Equation

How many Toothpicks in the 8th Diagram?

Which Diagram has 21 Toothpicks?

M9 - 6.1 - Patterns Word Problems HW

The following Diagrams are made out of Dots.



Draw another Diagram.

Create a Table of Values for Diagrams 1-5.

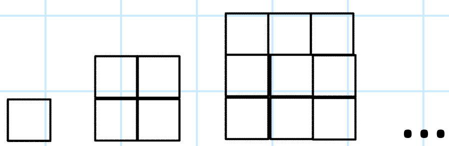
Write Let Statements

Find the Equation

How many Dots in the 9th diagram?

Which Diagram has 21 toothpicks?

The following Diagrams are made out of Toothpicks.



Draw another Diagram.

Create a Table of Values for Diagrams 1-5.

Write Let Statements

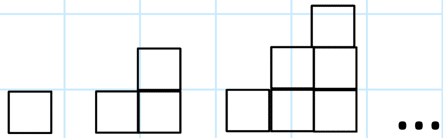
Find the Equation

How many Toothpicks in the 9th Diagram?

Which Diagram has 144 Toothpicks?

M9 - 6.1 - Patterns Word Problems HW

The following Diagrams are made out of Dots.



Draw another Diagram.

Create a Table of Values for Diagrams 1-5.

Write Let Statements

Find the Equation

How many Dots in the 15th diagram?

Which Diagram has 108 toothpicks?

M9 - 6.2 - Linear Patterns HW

Write an equation relating *t* to *n*.

n	*t*
1	2
2	3
3	4
4	5

n	*t*
1	0
2	1
3	2
4	3

n	*t*
1	3
2	6
3	9
4	12

n	*t*
1	3
2	5
3	7
4	9

n	*t*
1	4
2	7
3	10
4	13

n	*t*
1	2
2	6
3	10
4	14

n	*t*
1	-2
2	-4
3	-6
4	-8

n	*t*
1	0
2	-1
3	-2
4	-3

n	*t*
1	-1
2	-3
3	-5
4	-7

M9 - 6.2 - Linear Patterns HW

Write an equation relating *t* to *n*.

n	***t***
1	
2	
3	
4	

n	***t***
1	
2	
3	
4	

n	***t***
1	
2	
3	
4	

n	***t***
1	
2	
3	
4	

n	***t***
1	
2	
3	
4	

n	***t***
1	
2	
3	
4	

n	***t***
1	
2	
3	
4	

n	***t***
1	
2	
3	
4	

n	***t***
1	
2	
3	
4	

M9 - 6.2 - Curve Patterns HW

Write an equation relating *t* to *n*.

n	***t***
1	
2	
3	
4	

n	***t***
1	
2	
3	
4	

n	***t***
1	
2	
3	
4	

n	***t***
1	
2	
3	
4	

n	***t***
1	
2	
3	
4	

n	***t***
1	
2	
3	
4	

n	***t***
1	
2	
3	
4	

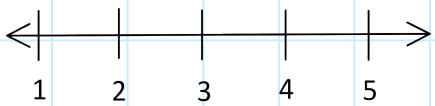
n	***t***
1	
2	
3	
4	

n	***t***
1	
2	
3	
4	

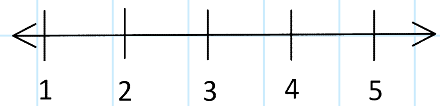
M9 - 9.1 - Inequalities on a Number Line HW

Plot on a Number Line.

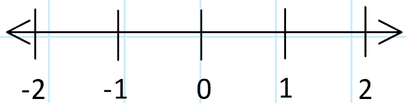
$x < 3$



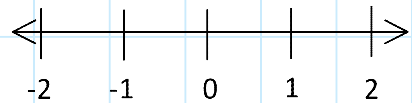
$x \geq 4$



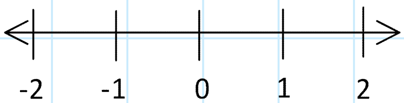
$x \geq -2$



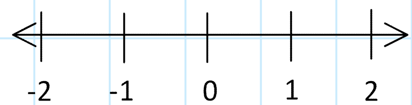
$x < 0$



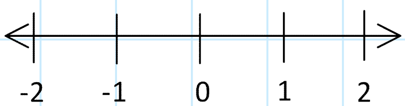
$x \leq -1$



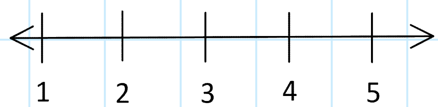
$x \geq -1$



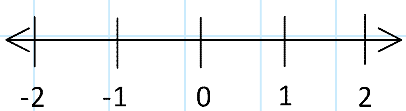
$-1 < x \leq 2$



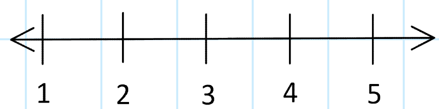
$2 \leq x < 5$



$-1 \leq x < 0$

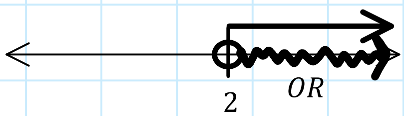


$3 < x \leq 5$



Plot on a Number Line.

$x > 2$



$x > 5$

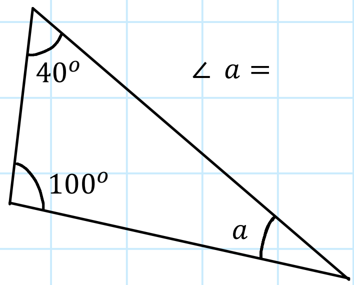
$3 < x$

$-2 \geq x$

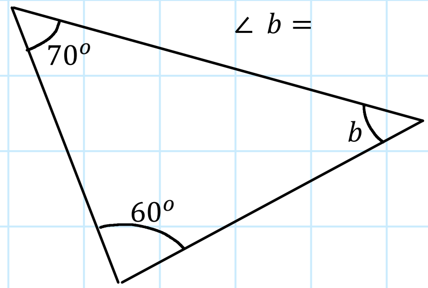
$2 \leq x < 4$

$-1 \leq x < 4$

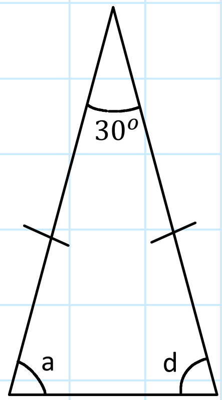
M9 - 10.0 - Angles in a Triangle HW



$\angle\ a =$

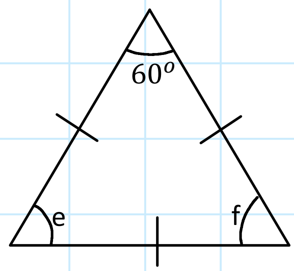


$\angle\ b =$



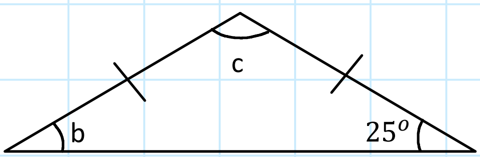
$\angle\ a =$

$\angle\ d =$



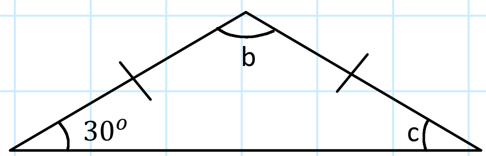
$\angle\ e =$

$\angle\ f =$



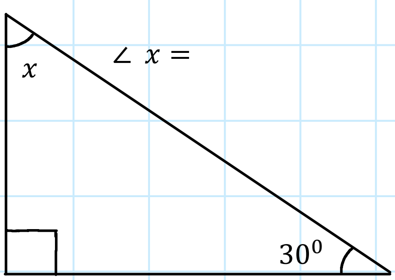
$\angle\ c =$

$\angle\ b =$

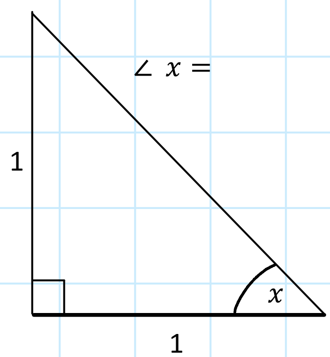


$\angle\ c =$

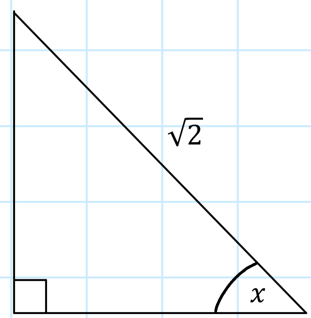
$\angle\ b =$



$\angle\ x =$



$\angle\ x =$

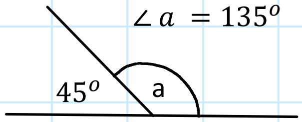


$\angle\ x =$

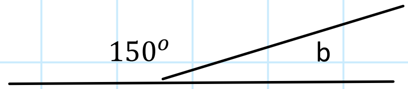
M9 - 10.1 - Opposite/Angle on Line HW

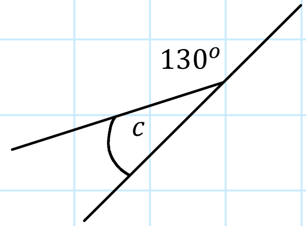
Find the missing angle. State your Reasoning.

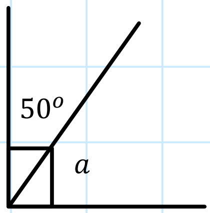
$\angle a = 135^o$

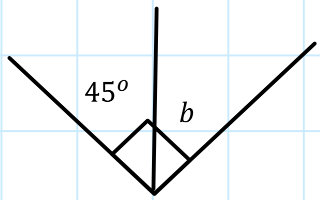


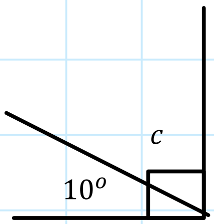
$\angle' s$ on Line Sum to 180^o

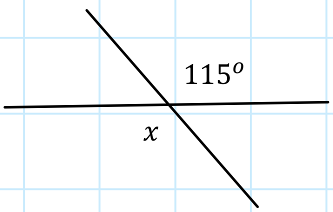


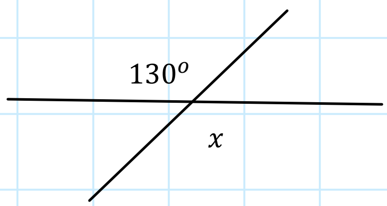


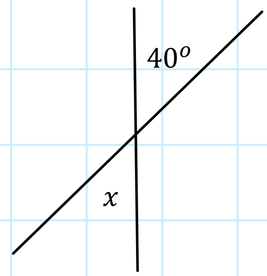


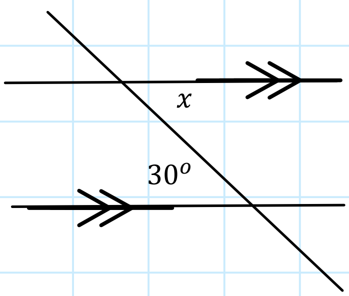


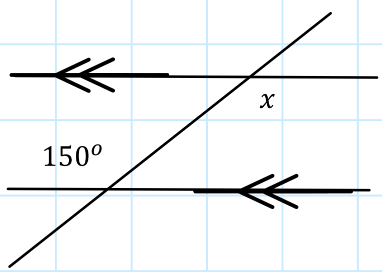


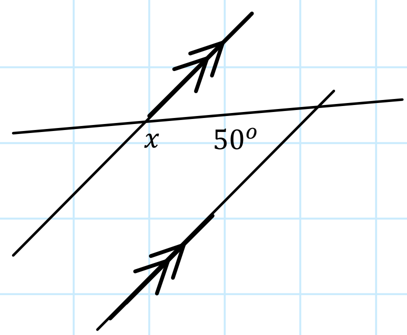


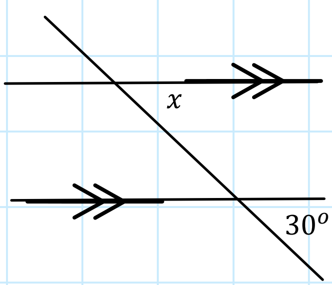


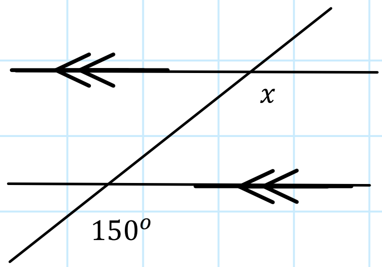


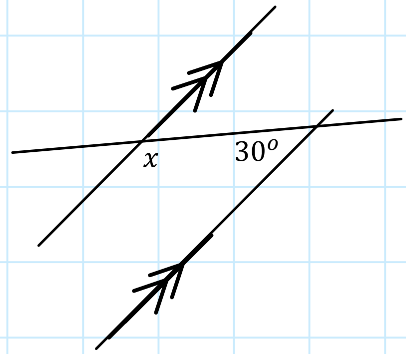






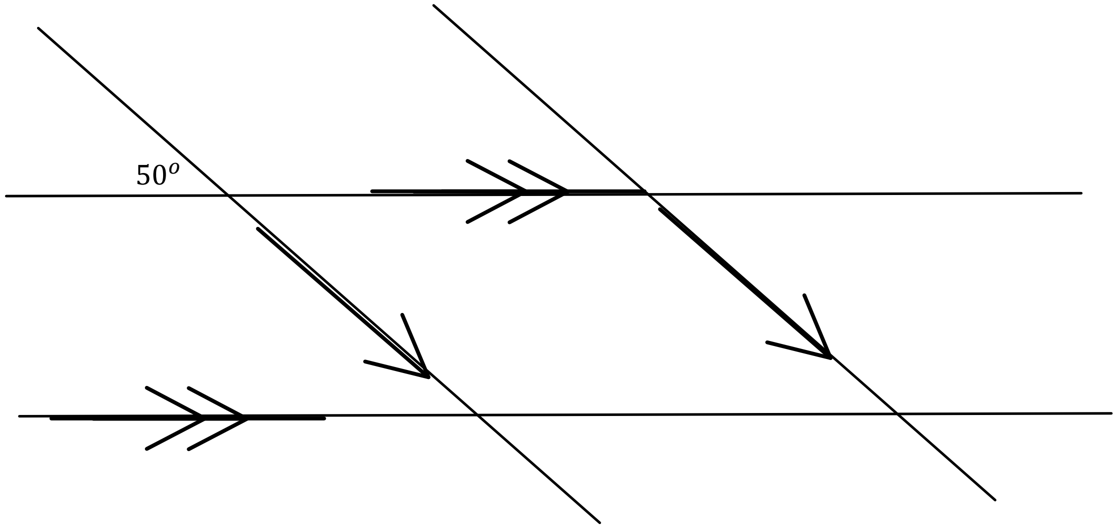


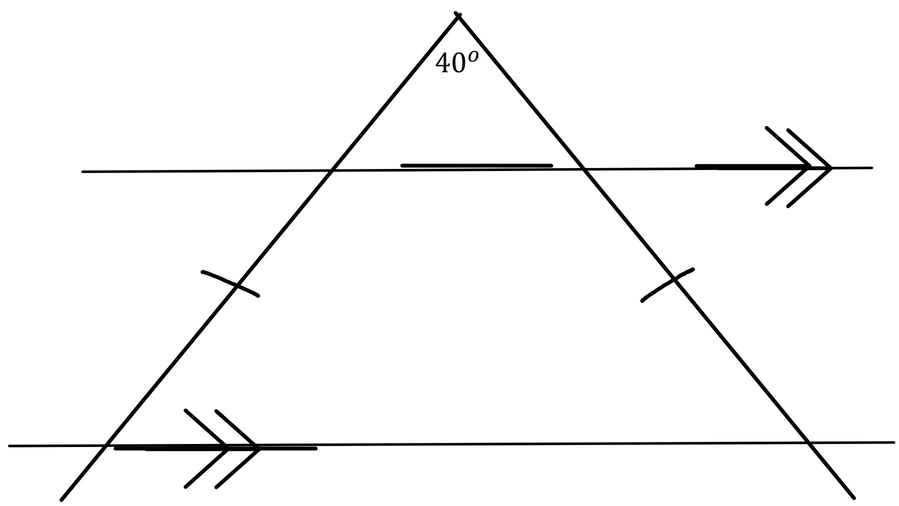


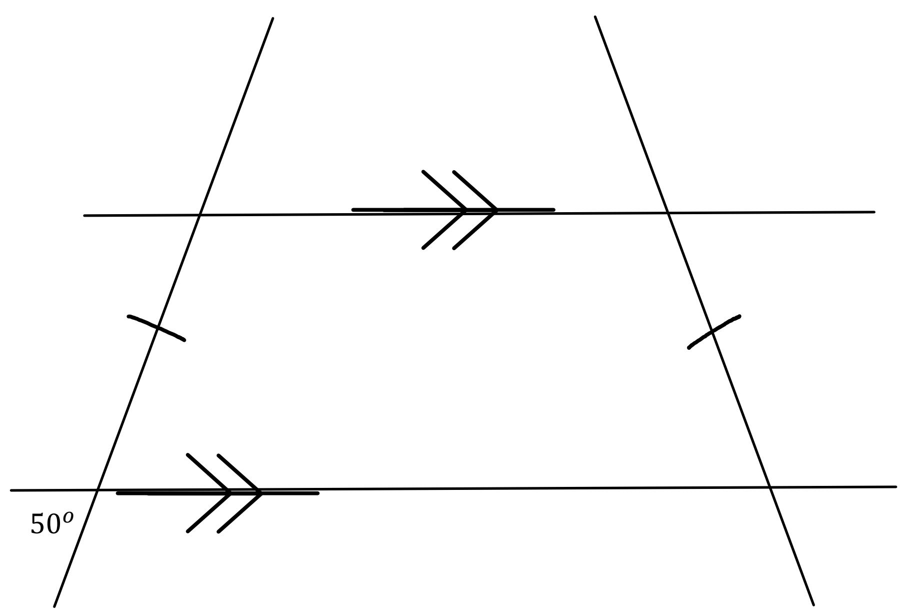


M9 - 10.1 - Opposite/Angle on Line HW

Find All the missing angles.

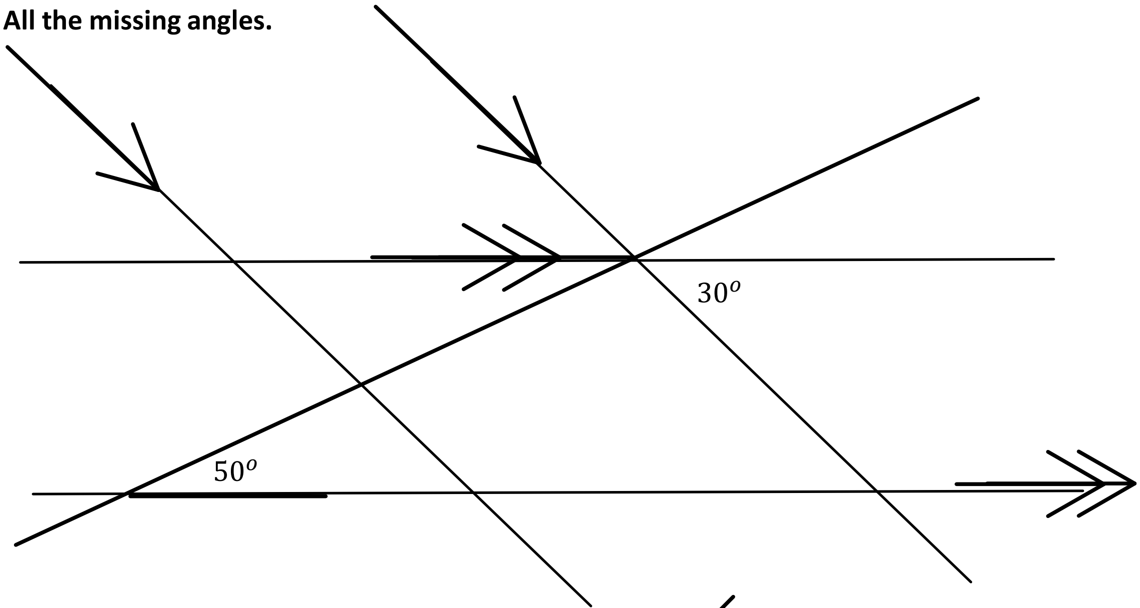


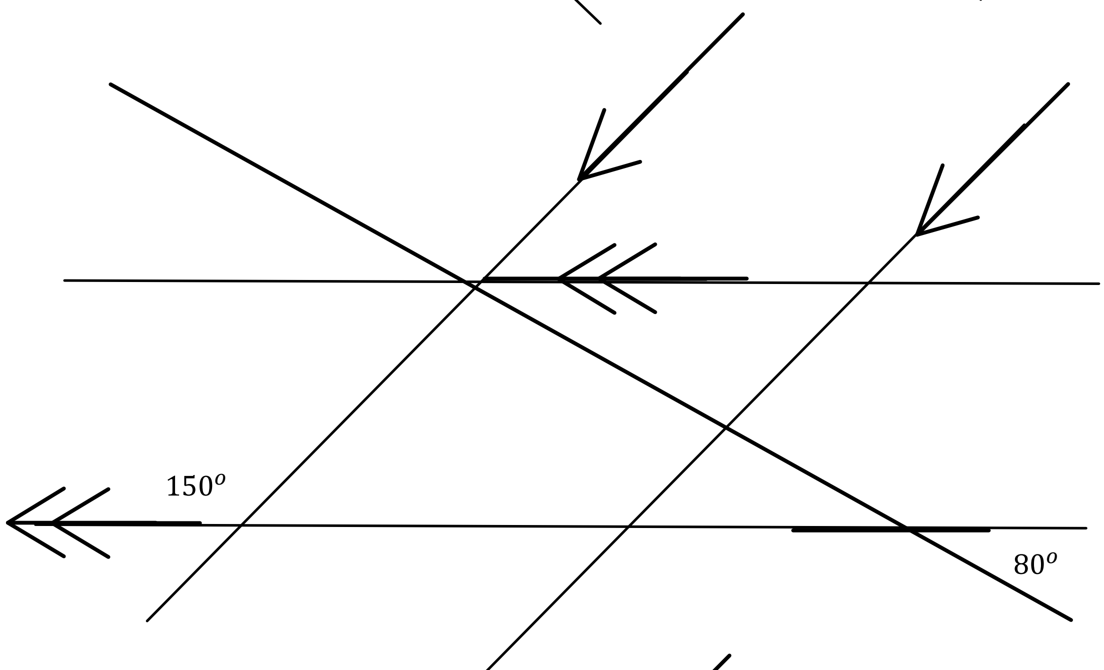


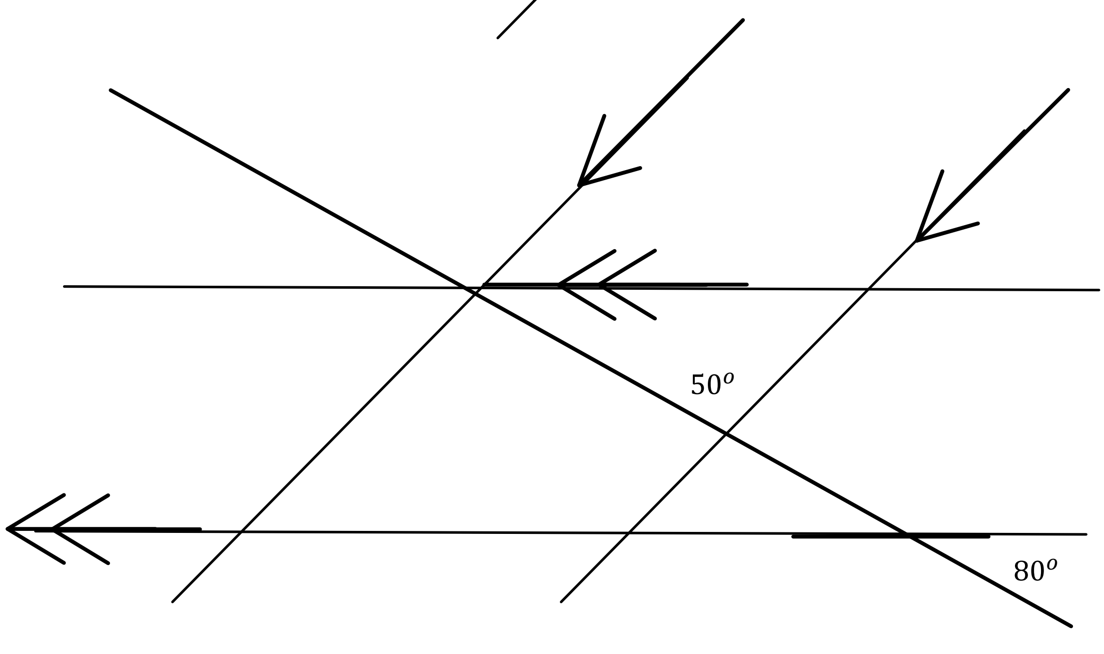


M9 - 10.1 - Opposite/Angle on Line HW

Find All the missing angles.

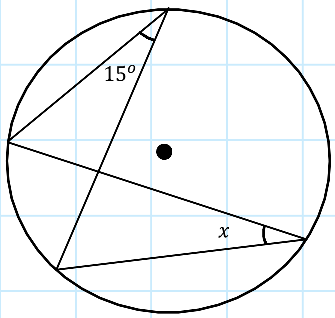


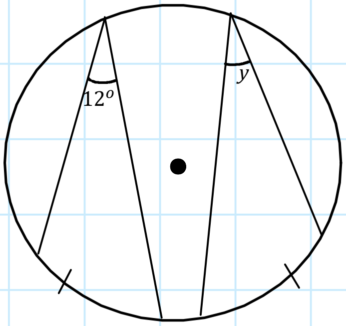


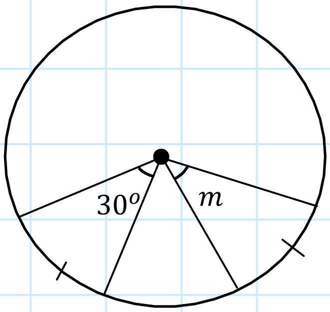


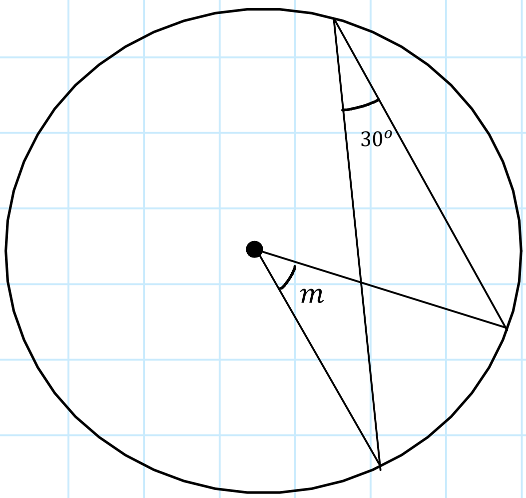
M9 - 10.2 - Find Inscribed/Central Angle HW

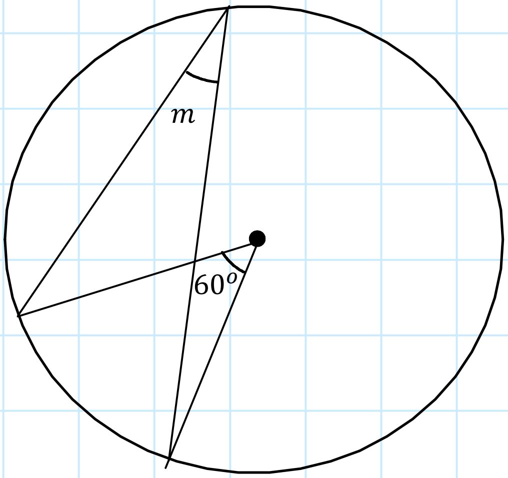
Find the unknown angle.

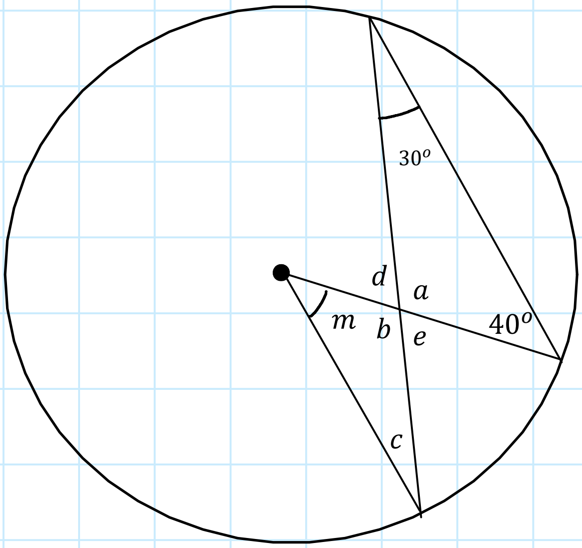


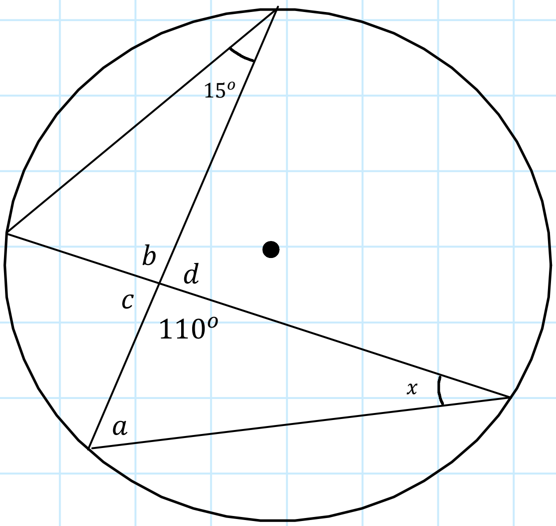






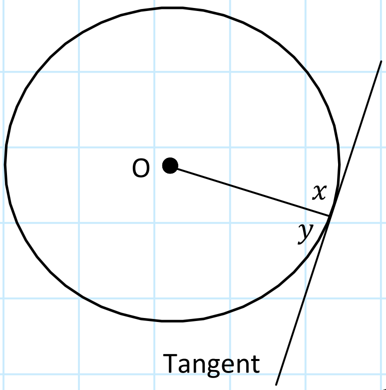


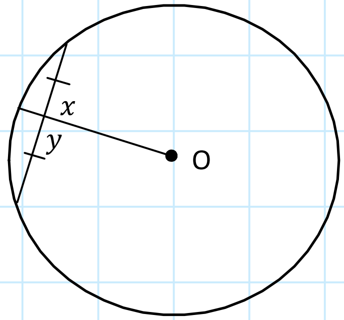


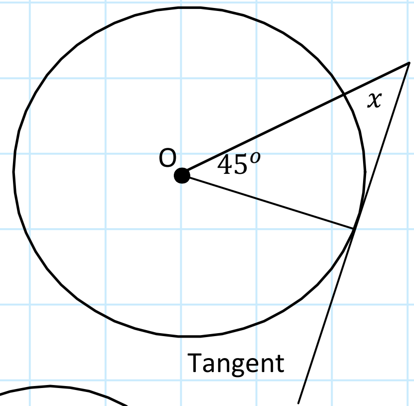


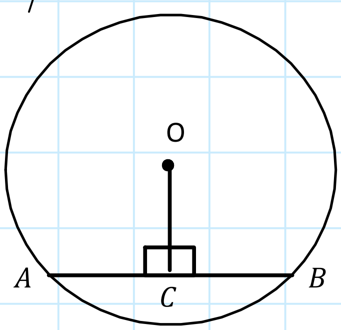
M9 - 10.3 - Rad Perp. To Tan/Chord HW

Find the unknown angle or length. O is the Centre. State your Reasoning.

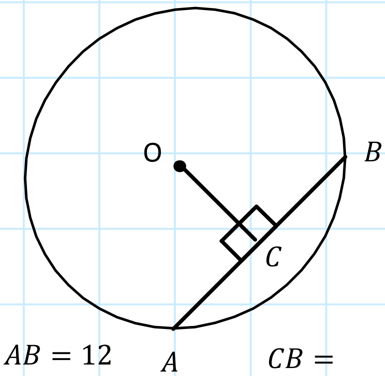




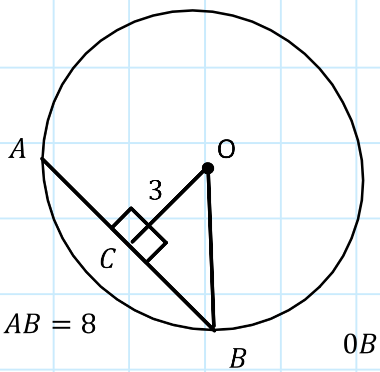




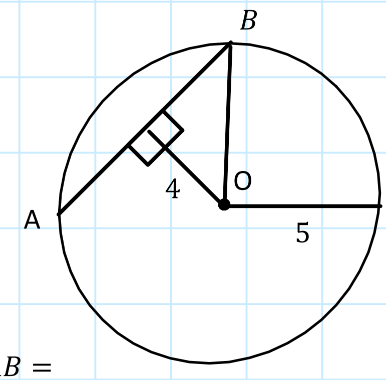
$AC = 5$ $\quad CB =$



$AB = 12$ $\quad CB =$

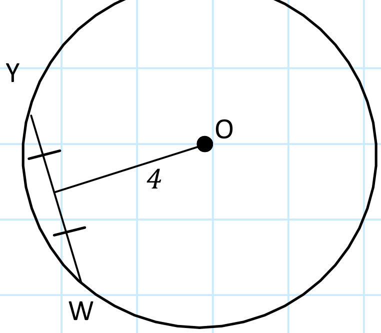


$AB = 8$ $\quad 0B =$

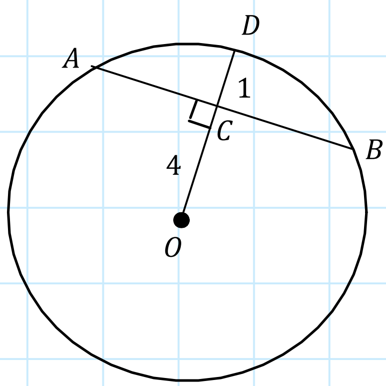


$AB =$

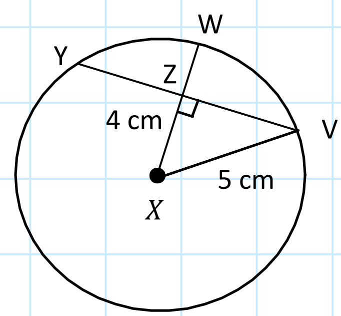
$WY = 6$



$Radius =$



$BC =$

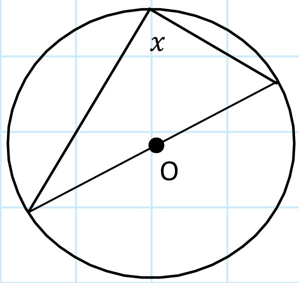


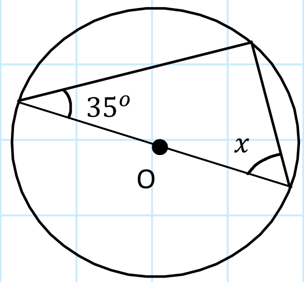
$ZV =$ $\quad WX =$

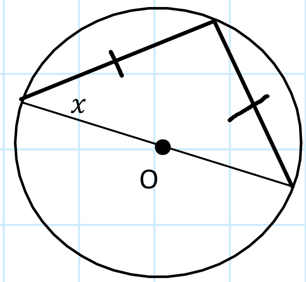
YV = $\quad$ WZ =

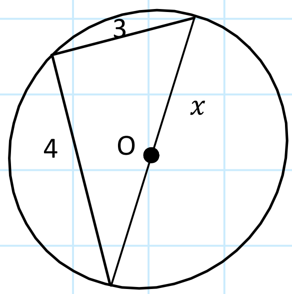
M9 - 10.3 - Circles/Semis/Triangles HW

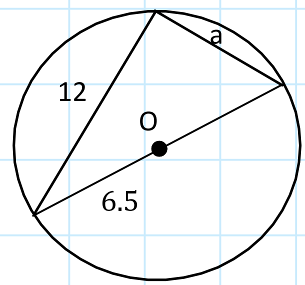
Find the unknown angle or length. O is the Centre. State your Reasoning.

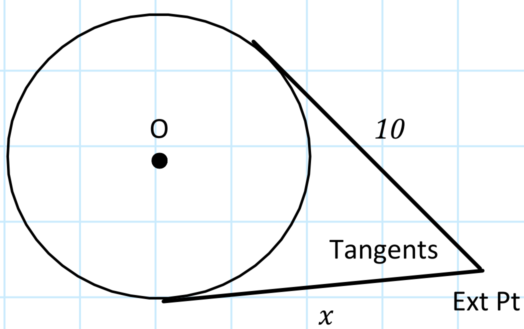


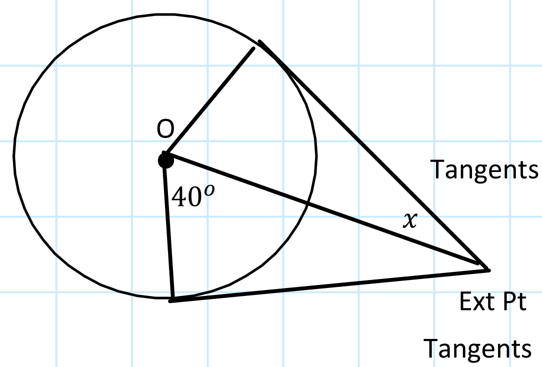


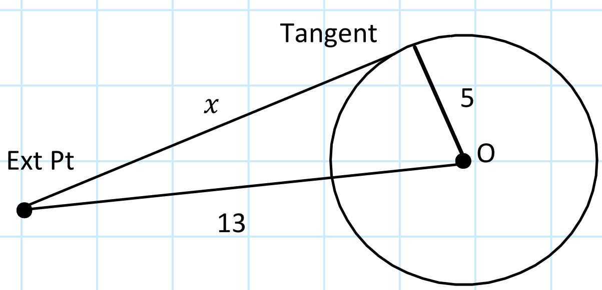


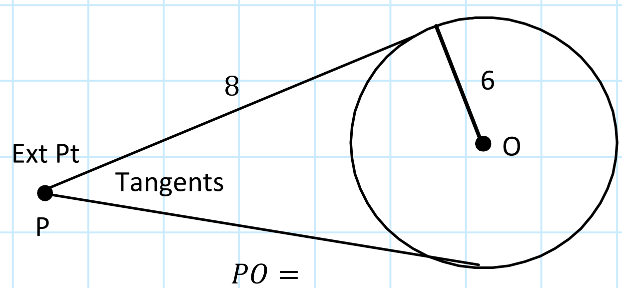












M9 - 10.5 - Central/Inscribed With Triangles HW

Find the unknown angle or length. O is the Centre. State your Reasoning.