

ATTACK!



A Unit 3
Review
Game

QUESTION 1

DIRECT OR INVERSE?

$$D = 4C$$



QUESTION 2

REWRITE AS A RADICAL EXPRESSION

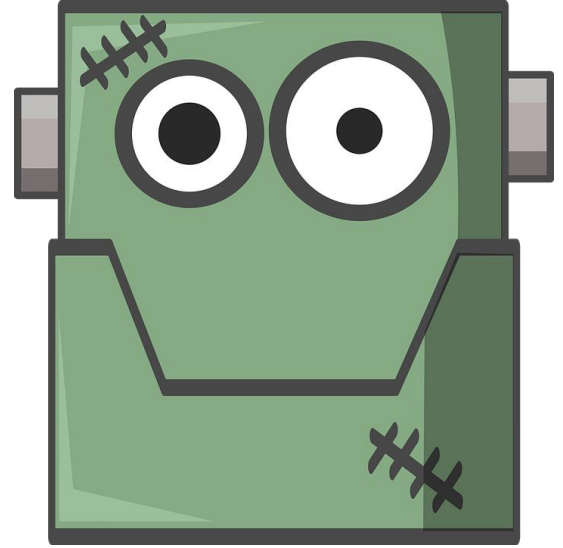
$$3x^{\frac{8}{3}}$$



QUESTION 3

SOLVE

$$\sqrt{6x - 5} = x$$



QUESTION 4

REWRITE WITH A RATIONAL EXPONENT

$$\sqrt[3]{x}$$



QUESTION 5

SOLVE:

$$\frac{3}{n - 2} = \frac{n}{5}$$



QUESTION 6

THE NUMBER OF REVOLUTIONS MADE BY A TIRE TRAVELING OVER A FIXED DISTANCE VARIES INVERSELY TO THE RADIUS OF THE TIRE. A 12-INCH RADIUS TIRE MAKES 100 REVOLUTIONS TO TRAVEL A CERTAIN DISTANCE. HOW MANY REVOLUTIONS WOULD A 16-INCH RADIUS TIRE REQUIRE TO TRAVEL THE SAME DISTANCE?



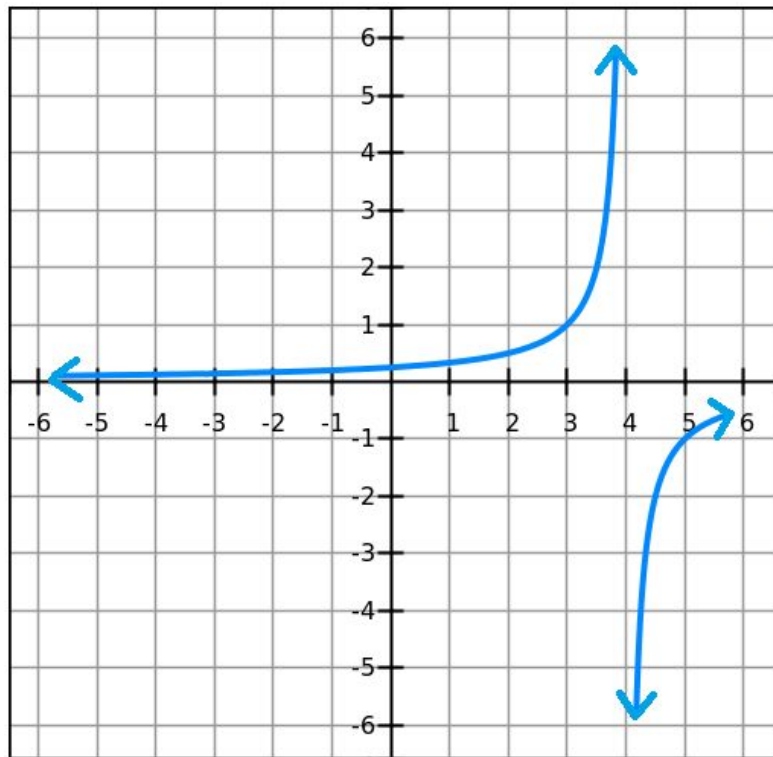
QUESTION 7

Y VARIES DIRECTLY WITH X.

AS X INCREASES, Y _____?



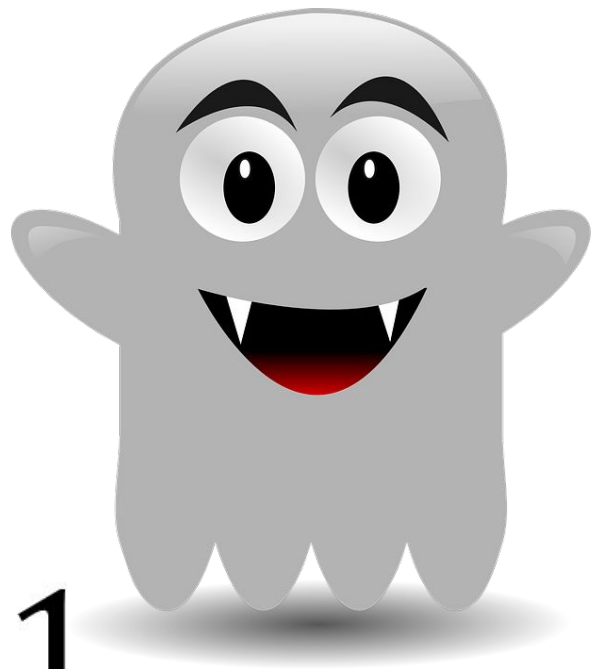
QUESTION 8



QUESTION 9

STATE THE TRANSFORMATIONS:

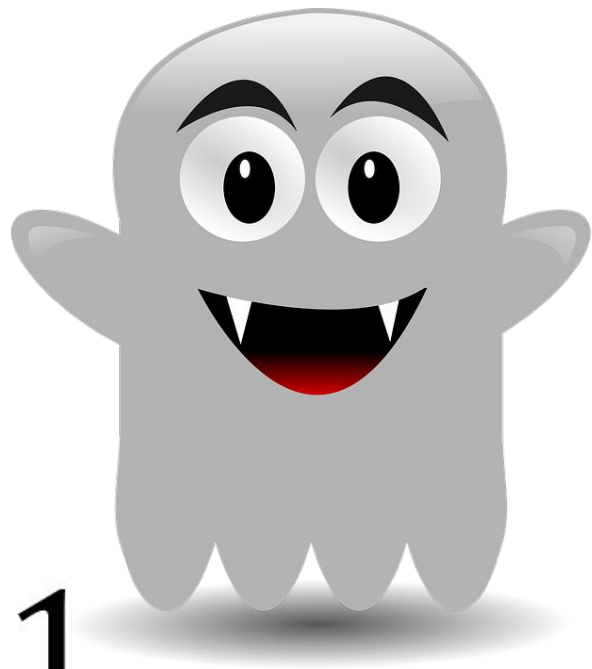
$$y = \frac{1}{x - 4} + 1$$



QUESTION 10

STATE THE DOMAIN & RANGE:

$$y = \frac{1}{x - 4} + 1$$



QUESTION 11

REWRITE AS A RADICAL EXPRESSION

$$y^{\frac{4}{5}}$$



QUESTION 12

SOLVE

$$5\sqrt{x + 7} - 6 = 19$$



QUESTION 13

WRITE THE EQUATION OF A
RADICAL FUNCTION THAT HAS
BEEN TRANSLATED 2 UNITS TO
THE LEFT AND ONE UNIT DOWN



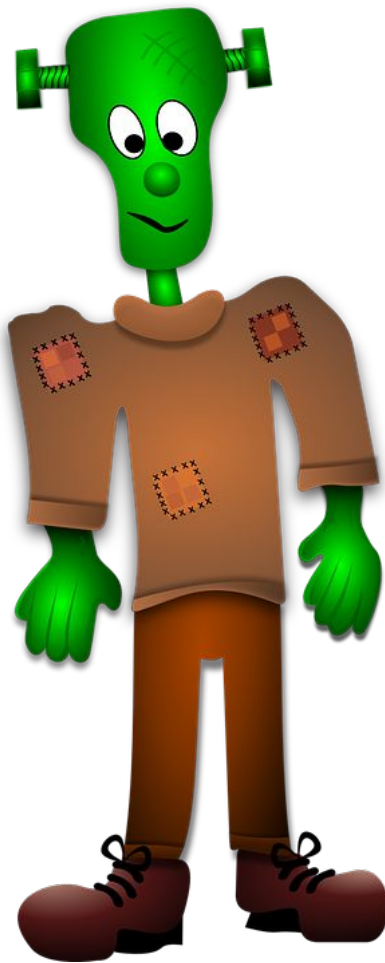
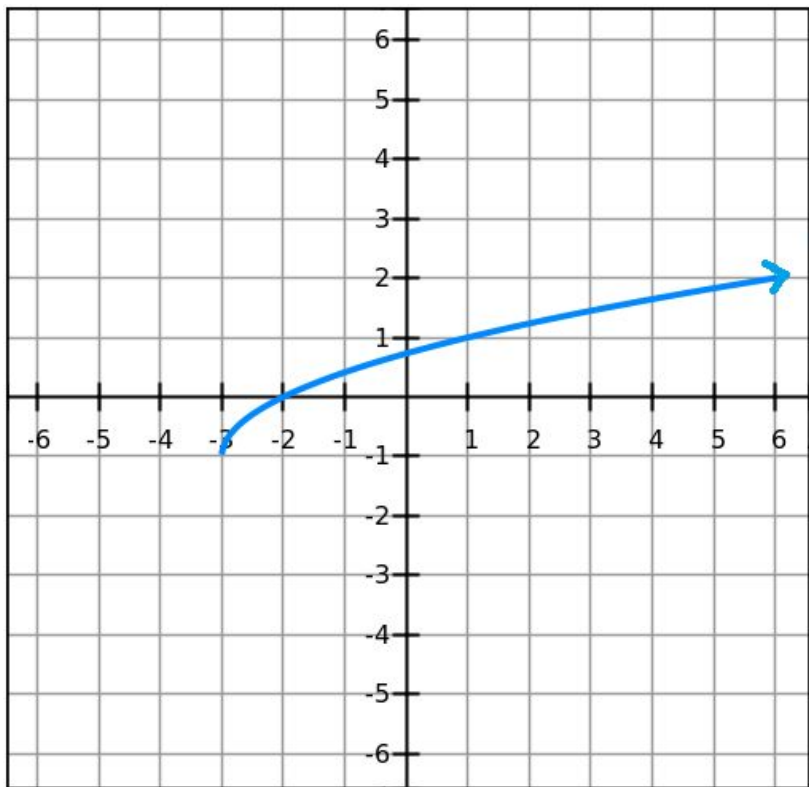
QUESTION 14

REWRITE AS A RADICAL EXPRESSION



$$(2x)^{\frac{5}{2}}$$

QUESTION 15



WRITE THE
EQUATION
FOR THE
GRAPH!

QUESTION 16

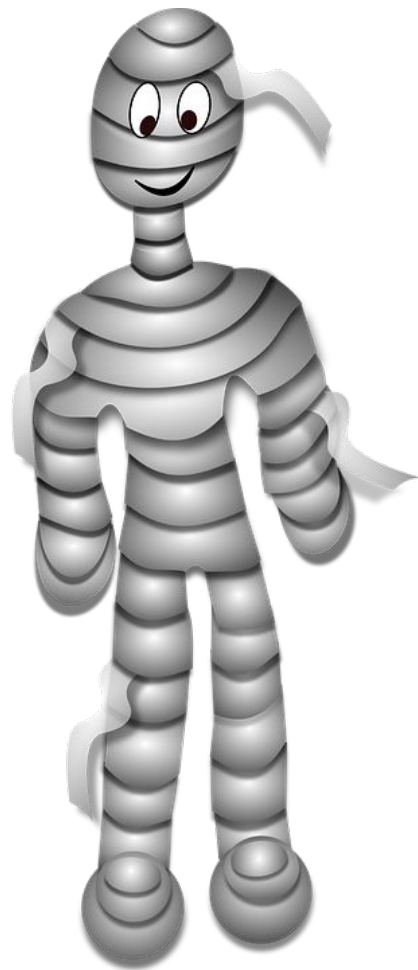
WRITE THE EQUATION OF A
RATIONAL FUNCTION THAT HAS
BEEN TRANSLATED 3 UNITS TO
RIGHT AND UP 4



QUESTION 17

STATE THE TRANSFORMATIONS:

$$y = 3\sqrt{x} + 1$$



QUESTION 18

SOLVE

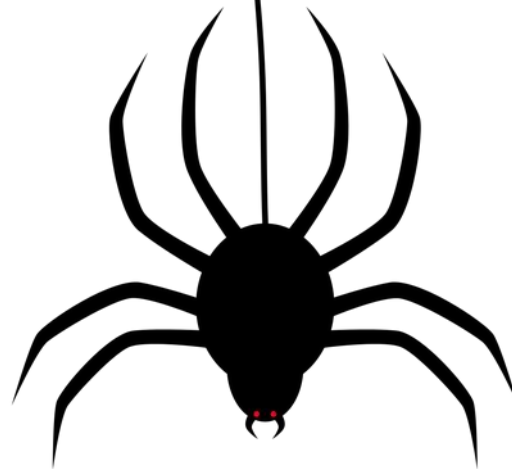


$$\sqrt{3x - 1} = \sqrt{2x + 4}$$

QUESTION 19

REWRITE WITH A RATIONAL EXPONENT

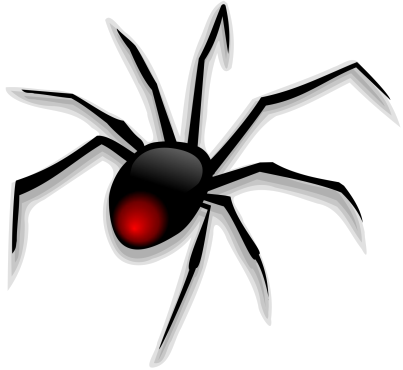
$$\sqrt{s^7}$$



QUESTION 20

DIRECT OR INVERSE?

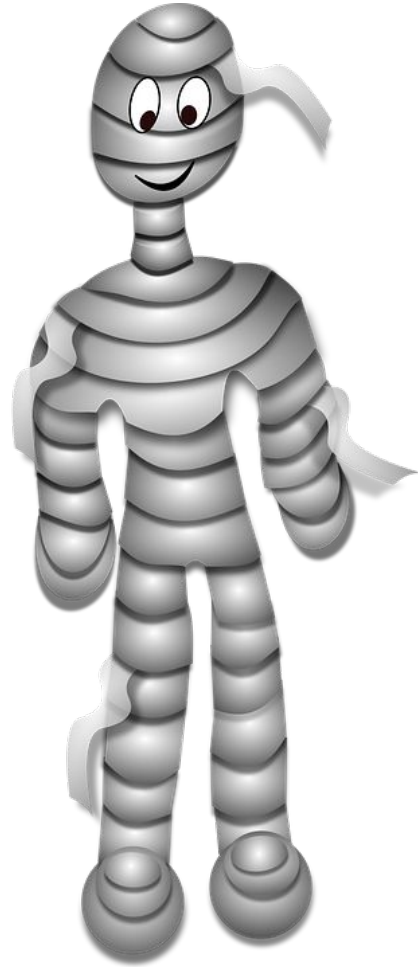
$$G = \left(\frac{1}{3} \right) H$$



QUESTION 21

STATE THE DOMAIN & RANGE:

$$y = -\sqrt{x - 2} + 1$$



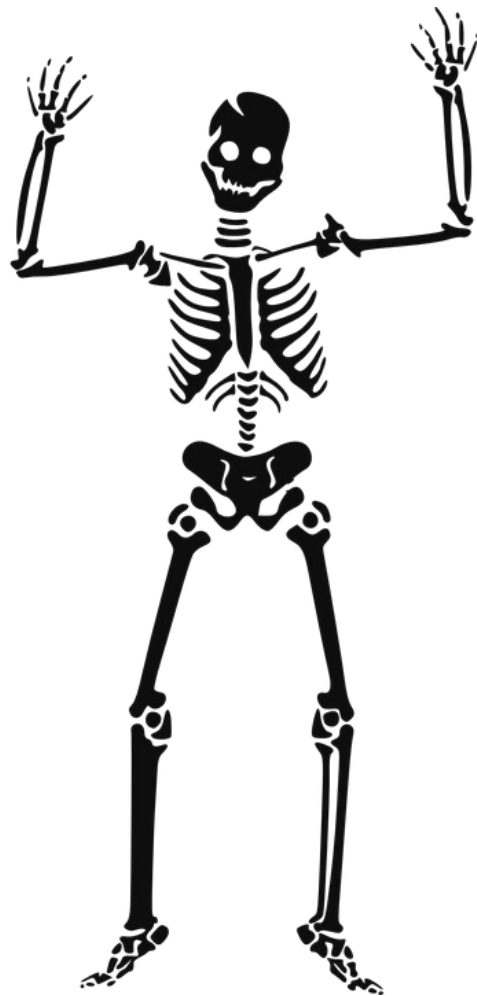
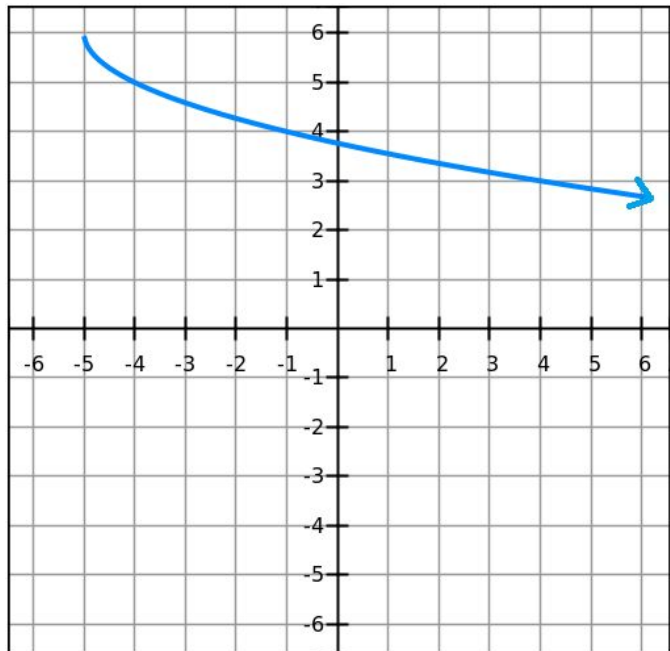
QUESTION 22

SOLVE:

$$x + 3 = \frac{10}{x}$$



QUESTION 23

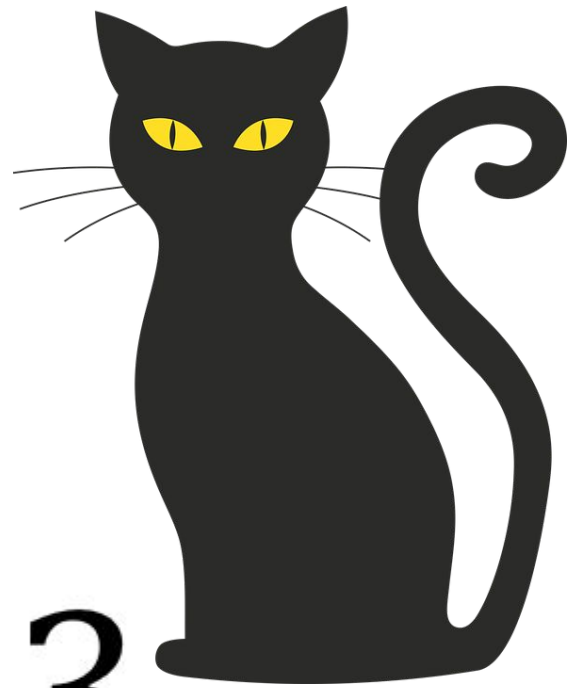


WRITE THE
EQUATION
FOR THE
GRAPH!

QUESTION 24

STATE THE TRANSFORMATIONS:

$$y = -\frac{1}{x} - 3$$

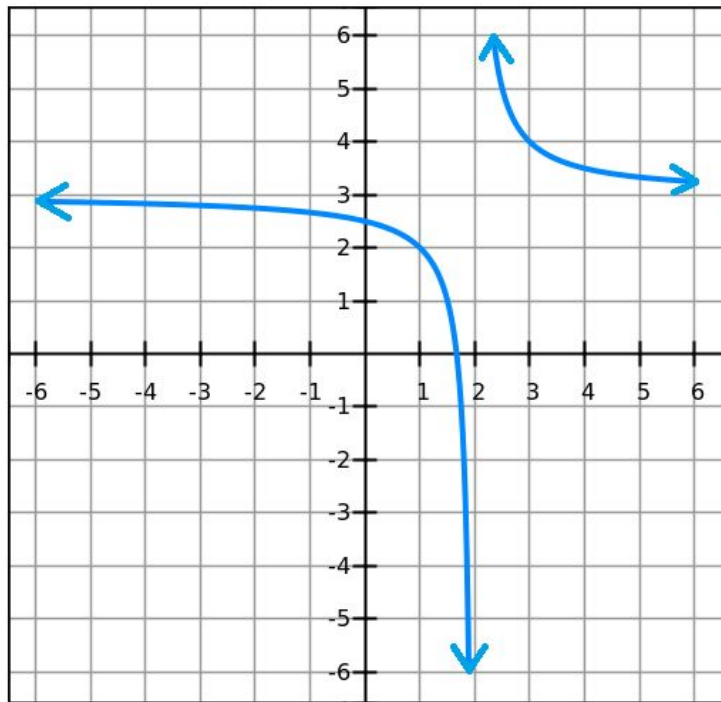


QUESTION 25

**Y VARIES INVERSELY WITH X.
IF $y = 30$ WHEN $x = 15$,
FIND x WHEN $y = -5$.**



QUESTION 26



QUESTION 27

DIRECT OR INVERSE?



$$E = 4 / F$$