Unit 9 Study Guide: CC2 Ch 8 & CC3 Ch 9.1

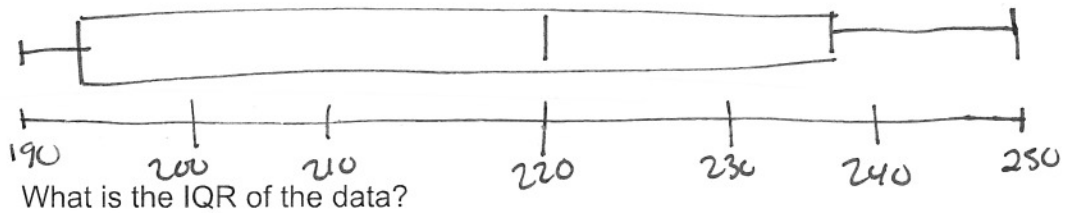
Box & Whisker Plot

The following are the weights of football players: ~~220~~, ~~225~~, ~~190~~, ~~193~~, ~~194~~, 250, ~~235~~, ~~240~~, ~~200~~.

193.5 237.5

190, 193, 194, 200, 220, 225, 235, 240, 250

Make a box plot for this set of data.



What is the IQR of the data?

$237 - 193.5 = 43.5$

What percent of players weigh inside the IQR?

50%

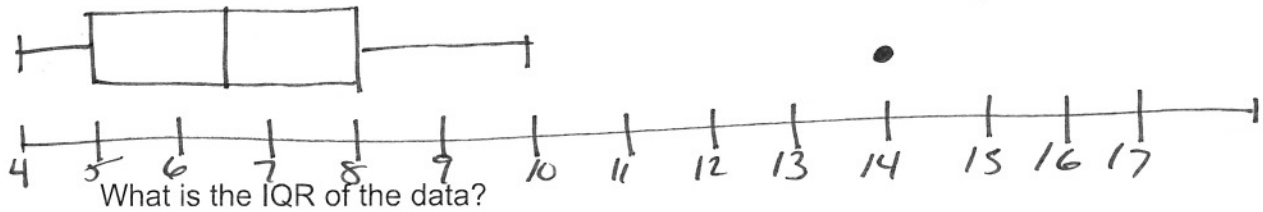
The following are the number of days poppies take to germinate: ~~5~~, ~~7~~, 14, 10, ~~6~~, ~~8~~, ~~4~~, ~~5~~, ~~4~~, ~~7~~, ~~8~~, ~~6~~.

6.5 8

4, 4, 5, 5, 6, 6 | 7, 7, 8 | 8, 10, 14

IQR × 1.5 = 4.5

Make a box plot for this set of data.



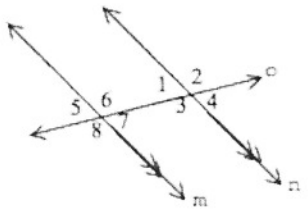
What is the IQR of the data?

$8 - 5 = 3$

What percent of poppies take longer than the Q3 to sprout?

25%

Types of Angles



∠6 & ∠8 are vertical angles. (congruent)

∠1 & ∠7 are alt. interior angles. (congruent)

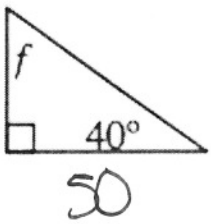
∠2 & ∠8 are alt. exterior angles. (congruent)

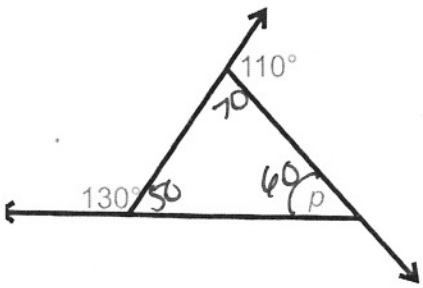
∠3 & ∠4 are supplementary angles. (+ adjacent)

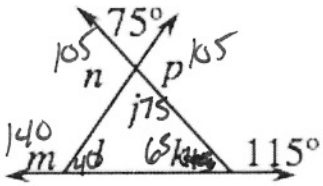
∠1 & ∠4 are vertical angles. (congruent)

∠1 & ∠5 are corresponding angles. (congruent)

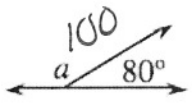
Finding Angle Measures



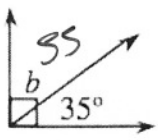




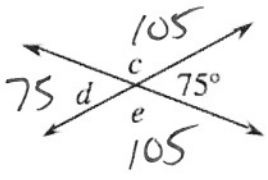
1.



2.

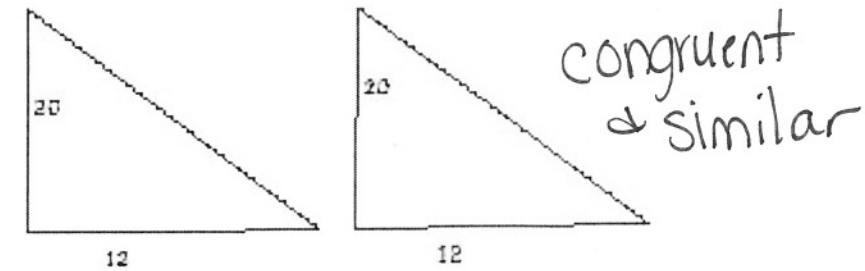


3.

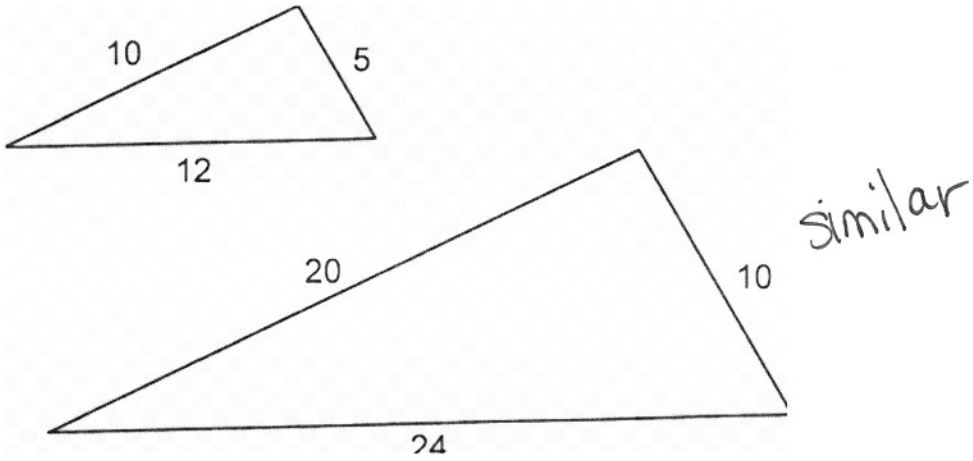


Congruent & Similar Figures

Congruent, Similar, or Neither?



congruent & similar



similar

Review

Burt's chickens lay 40% fewer eggs than Berry's chickens. If Berry's chickens lay 50 eggs per week, how many do Burt's lay?

Berry • .6 = Burt

50 • .6 = 30 eggs

Sam bought a jacket, which was 1/4 off the original price. If Sam paid $18.75, what was the original price?

18.75 = 3/4 x

$25

Becky buys a pair of shoes that are 40% off the original price. If he paid $15, what was the original price?

$.6x = 15$

$25

My chickens ate 40% of a 25lb of chicken feed last month. Last month, they ate 70% of the remaining chicken feed. How much is left now?

$25 \times .6 = 15$ lb left $\times .3 =$ 4.5lb

What is the slope of a line that goes through (-3, 2) and (6, 4)?

$\frac{2-4}{-3+6} = \frac{-2}{-9} = 2/9$

What is the slope of a line that goes through (0, 4) and (3, -2)?

$\frac{4--3}{0-3} = \frac{6}{-3} = -2$

What is the slope of a line that goes through (5, 4) and (6, 2)?

$\frac{4-2}{5-6} = \frac{2}{-1} = -2$

What is the slope of a line that goes through (2, 5) and (3, -2)?

$\frac{5--2}{2-3} = \frac{7}{-1} = -7$

Simplify: $x^2y^6 \cdot x^3y^{-2}$

x^5y^4

Simplify: $a^6b^9 \cdot a^2b^5$

a^8b^{14}

Simplify: $a^3b^7 \cdot a^0b^{-3}$

a^3b^4

Simplify $(x^3y^4z^6)^7$

$x^{21}y^{28}z^{42}$

Simplify $(x^4y^6z^9)^3$

$x^{12}y^{18}z^{27}$

Simplify $(x^3y^2z^5)^0$

1 if $x, y, z \neq 0$

$x - 2(3x - 4) = x + 2 - 6$

$x - 6x + 8 = x - 4$

$-5x + 8 = x - 4$

$+5x \quad +4 \quad +5x + 4$

$12 = 6x$

$x = 2$

$x - (x + 2) = x + 3 - 7$

$x - x - 2 = x - 4$

$-2 = x - 4$

$+4 \quad +4$

$2 = x$

$\frac{2x}{6} + \frac{2x}{4} + 3 = -1$

$6\left(\frac{1}{3}x + \frac{1}{2}x + 3 = -1\right)$

$x = -\frac{24}{5}$ or $-4\frac{4}{5}$

$2x + 3x + 18 = -6$

$5x + 18 = -6$

$-18 \quad -18$

$5x = -24$

$\left(\frac{3x}{5} + \frac{2x}{4} + 2 = 6\right)20$

$\frac{60x}{5} + \frac{40x}{4} + 40 = 120$

$12x + 10x + 40 = 120$

$22x + 40 = 120$

$\frac{22x = 80}{22}$

$x = \frac{80}{22} = \frac{40}{11}$

$3\frac{7}{11}$

simplify $3(2 + 1) \div 3(3) - 3^2$

P $3 \cdot 3 \div 3 \cdot 3 - 3^2$

E $3 \cdot 3 \div 3 \cdot 3 - 9$

M/D $9 \div 3 \cdot 3 - 9$

$3 \cdot 3 - 9$

A/S $9 - 9$

0

Simplify $-2^3 + 5 \div 2(-2)$

P ~~NA~~

E $-8 + 5 \div 2 \cdot -2$

M/D $-8 + 2.5 \cdot -2$

A/S $-8 + -5$

-13