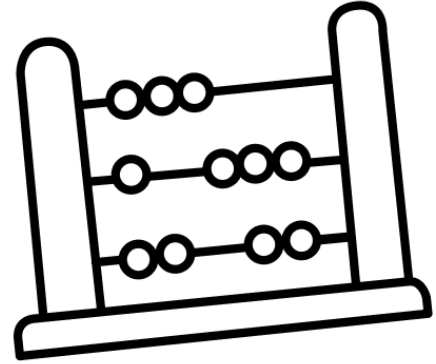


Hubinta iyo xaqiijinta xallinta isla'egyada toosan (linear equations)



Maths

Cutub: Tibaaxaha iyo qaaciidooyinka (expressions and formulae)

Natiijo

Waxaan xallin karaa isla'egyada ku lug leh qawska (brackets).

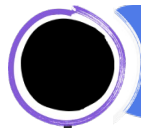
Erayada muhiimka ah

Isku-dhafka (additive inverse) ee lambarku waa lambar, marka lagu daro lambarka asalka ah, wuxuu keenaa wadar 0.

Isdhaafka (reciprocal) waa isku-dhafka isku dhufashada (multiplicative inverse) ee lambar kasta oo aan eber ahayn. Lambar kasta oo aan eber ahayn oo lagu dhufto isdhaafka wuxuu la mid yahay 1

Erayada isku midka ah (like terms) waa erayo leh isku nooc doorsoomeyaal (variables) iyo jibbaarada (exponents) u dhigma.

Hubinta iyo xaqiijinta xallinta isla'egyada toosan (linear equations)



Xallinta isla'egyada ku lug leh tibaax qaws leh (bracketed expression)



Xallinta isla'egyada leh qawsyo badan (multiple brackets)

Markaan aragno isla'egyada leh qawsyo (brackets) waxaan ballaarin karnaa qawska si aan u xallinno.

$$6(x - 1) = 32$$

$$6 \times x + 6 \times -1 = 6x - 6$$

$$6x - 6 = 32$$

Qaabkani wuxuu u eeg yahay mid aad u yaqaan. Halkan waxaan ka xallin karnaa adoo wax ka beddelaya.

$$6x - 6 + 6 = 32 + 6$$

Isku-dhafka (additive inverse) ee -6 waa $+6$

$$6x = 38$$

$$\frac{6x}{6} = \frac{38}{6}$$

Marka jawaabtu aanay ahayn tiro dhammaystiran (integer) waxaa ugu fudud inaad jawaabta uga tagto jajab (fraction). Waxaa faa'iido leh in jajabka loo qoro qaabkiisa ugu fudud.

$$x = \frac{19}{3}$$

Xalli isla'egtan adoo ballaarinaya qawska (brackets).

$$3(2x + 8) = 6$$

$$6x + 24 = 6$$

$$6x = -18$$

$$x = -3$$

Hubi xalka adoo beddelaya (substitution).

$$3(2(-3) + 8) = 6$$

$$3(-6 + 8) = 6$$

$$3(2) = 6$$



Xalli isla'egtan adoo ballaarinaya qawska (brackets).

$$4(3x + 20) = 20$$

$$12x + 80 = 20$$

$$12x = -60$$

$$x = -5$$

Hubi xalka adoo beddelaya (substitution).

$$4(3(-5) + 20) = 20$$

$$4(-15 + 20) = 20$$

$$4(5) = 20$$





Nuur

Waxaan u malaynayaa inaan arkay hab ka dhaqs badan su'aashaas dambe.

$$4(3x + 20) = 20$$

Ma arki kartaa waxa Nuur arkay?

4 waa qeybiye guud (common factor) oo ah tibaaxaha labada dhinac ee isla'egta (equation)

Halka aan ku aragno qeybiyeyaasha guud (common factors), u qaybinta isku-dhufashada (coefficient) qawska (bracket) waxay noqon kartaa milan (solution) ugu dhaqsaha badan.

Labada dhinacba waxaa loo qaybiyay 4

$$4(3x + 20) = 20$$

$$\longrightarrow 3x + 20 = 5$$

$$3x = -15$$

$$x = -5$$

Xallinta isla'egyada (equations) ku lug leh tibaax qaws leh (bracketed expression)

Nuur wuxuu xallinayaa isla'egyo (equations) dheeri ah oo leh qawsyo (brackets).

Marka hore balaadhin (expanding):

$$3(x - 2) = 15$$

$$3x - 6 = 15$$

$$3x = 21$$

$$x = 7$$

Marka hore ku dhufasho is-daba-rog (reciprocal):

$$3(x - 2) = 15$$

$$x - 2 = 5$$

$$x = 7$$

Waxaan la yaabanahay habkee u fududan doono tusaalahan.



Xallinta isla'egyada (equations) ku lug leh tibaax qaws leh (bracketed expression)

Nuur wuxuu xallinayaa isla'egyo (equations) dheeri ah oo leh qawsyo (brackets).

Marka hore balaadhin (expanding):

$$8(x - 3) = 20$$

$$8x - 24 = 20$$

$$8x = 44$$

$$x = \frac{11}{2} \text{ or } 5.5$$

Marka hore ku dhufasho is-daba-roq (reciprocal):

$$8(x - 3) = 20$$

Waxaan u malaynayaa inaan helay tusaale ay balaadhinta qawsyada (brackets) ku fududaan doonto.



Xallinta isla'egyada (equations) ku lug leh tibaax qaws leh (bracketed expression)

Nuur wuxuu xallinayaa isla'egyo (equations) dheeri ah oo leh qawsyo (brackets).

Marka hore balaadhin (expanding):

$$8(x - 3) = 20$$

$$8x - 24 = 20$$

$$8x = 44$$

$$x = \frac{11}{2} \text{ or } 5.5$$

Marka hore ku dhufasho is-daba-roq (reciprocal):

$$8(x - 3) = 20$$

$$x - 3 = \frac{20}{8} = \frac{5}{2}$$

$$x - 3 + \frac{6}{2} = \frac{5}{2} + \frac{6}{2}$$

$$x = \frac{11}{2} \text{ or } 5.5$$

Qaybinta marka hore waxay la timid xisaabo badan oo jajab (fractions) ah. Waa doorasho shaqsiyeed (personal preference) habka aad ugu fududan tahay su'aal kasta.

Xallinta isla'egyada (equations) ku lug leh tibaax qaws leh (bracketed expression)

Marka isku-dhufashada (coefficient) qawska (bracket) ay tahay jajab (fraction), balaadhinta qawska (bracket) waxay noqon kartaa mid waqti badan qaadata oo u horseedi karta xisaabo adag.

$$\frac{3}{5}(x + 7) = 30$$

$$\frac{3}{5}x + \frac{21}{5} = 30$$

$$\frac{3}{5}x = 30 - \frac{21}{5}$$

$$\frac{3}{5}x = \frac{129}{5}$$

$$\frac{3}{5}x \times \frac{5}{3} = \frac{129}{5} \times \frac{5}{3}$$

$$x = 43$$

Xallinta isla'egyada (equations) ee ku lug leh tibaax qaws leh (bracketed expression)

Isku day inaad xallisid isla'egtan (equation) adigoo u qaybinaya labada dhinac ee isla'egta (equation)

$$\frac{3}{5}$$

$$\frac{3}{5}(x + 7) = 30$$

$$x + 7 = 30 \times \frac{5}{3}$$

$$x + 7 = 50$$

$$x = 43$$

Xusuusnow, u qaybinta jajab (fraction) waxay la mid tahay ku dhufashada isku-dhafka (reciprocal).



Taasi way ka fududayd in la balaadhiyo qawska (brackets) marka hore.

Xallinta isla'egyada (equations) ee ku lug leh tibaax qaws leh (bracketed expression)



Run mise been?

Isla'egta (equation) $5(x + 4) = 50$ waa in lagu xalliyaa balaadhinta qawska (brackets) marka hore.



Run



Been



Sabab u sheeg jawaabtaada

a

Dhammaan isla'egyada (equations) way fududahay in la xalliyo haddii aad marka hore u qaybiso koeffisiyenta (coefficient) qawska (bracket).

b

5 iyo 50 waxay leeyihiin qaybiye guud (common factor) sidaas darteed u qaybinta koeffisiyenta (coefficient) qawska (bracket) ayaa laga yaabaa inay fududahay.



Xallinta isla'egyada (equations) ee ku lug leh tibaax qaws leh (bracketed expression)

Tallaabada koowaad ee keentay in isla'egta (equation) $7(x + 3) = 32$ ay fududaato waa kee?

a

Balaadhinta qawska (brackets)



b

Ku darista 3 labada dhinac

c

Ku dhufashada labada dhinac

$$\frac{1}{7}$$

d

U qaybinta labada dhinac 7

Xallinta isla'egyada (equations) ee ku lug leh tibaax qaws leh (bracketed expression)



Tallaabada koowaad ee keentay in isla'egta (equation) $7(x + 3) = 32$ ay fududaato waa kee?

a $7x + 21 = 32$ ✓

Balaadhinta qawska (brackets) ayaa ugu shaqeysa xaaladdan.

b $7(x + 3) + 3 = 35$

Ku darista 3 kama caawinayso xallinta isla'egta (equation).

c $x + 3 = 32 \times \frac{1}{7}$

Ku dhufashada toddobaad (seventh) iyo u qaybinta 7 waa isku mid. Labaduba waxay naga caawinayaan xallinta isla'egta (equation), laakiin 7 ma aha qaybiye (factor) 32, sidaas darteed habkani wuxuu u baahan doonaa xisaab jajab (fraction) dheeri ah.

d $\frac{7(x + 3)}{7} = \frac{32}{7}$

1) Soo hel qaladka (mistake) ee hab kasta si loo xalliyo isla'eg (equation) ku lug leh qaws (brackets).

a)

$$5(x + 10) = 55$$

$$5x + 10 = 55$$

$$5x = 45$$

$$x = 9$$

b)

$$2(4x + 10) = 18$$

$$2x + 5 = 9$$

$$2x = 4$$

$$x = 2$$

c)

$$7(x - 3) = 42$$

$$x - 3 = 6$$

$$x = 3$$

1) Ka hel qaladka hab kasta oo lagu xalliyo isla'eg (equation) oo ay ku jiraan qawsyo (brackets).

d)

$$5(3x + 2) = 14$$

$$8x + 10 = 14$$

$$8x = 4$$

$$x = 2$$

e)

$$\frac{1}{3} (2x - 5) = 15$$

$$2x - 5 = 3$$

$$2x = 8$$

$$x = 4$$

f)

$$\frac{3}{4} (10 - 8x) = 6$$

$$\frac{30}{4} - \frac{24}{4}x = 6$$

$$-\frac{24}{4}x = -\frac{3}{2}$$

$$x = -\frac{3}{2} \times \frac{4}{24}$$

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

2a) Ku xalli isla'egtan (equation) adigoo isticmaalaya labada hab, oo qor jumlad isbarbardhigaysa waxtarka hababka.

Marka hore balaadhi (Expanding first):

$$6(x - 9) = 21$$

Marka hore ku dhufo isdhaafsigu (Multiplying by the reciprocal first):

$$6(x - 9) = 15$$

2b) Ku xalli isla'egtan (equation) adigoo isticmaalaya labada hab, oo qor jumlad isbarbardhigaysa waxtarka hababka.

Marka hore balaadhi (Expanding first):

$$15(4x + 7) = 45$$

Marka hore ku dhufo isdhaafsiga (Multiplying by the reciprocal first):

$$15(4x + 7) = 45$$

2c) Ku xalli isla'egtan (equation) adigoo isticmaalaya labada hab, oo qor jumlad isbarbardhigaysa waxtarka hababka.

Marka hore balaadhi (Expanding first):

$$\frac{6}{5}(3x + 4) = 30$$

Marka hore ku dhufo isdhaafsiga (Multiplying by the reciprocal first):

$$\frac{6}{5}(3x + 4) = 30$$

1) Ka hel qaladka hab kasta oo lagu xalliyo isla'eg (equation) oo ay ku jiraan qawsyo (brackets).

a)

$$5(x + 10) = 55$$

$$5x + 10 = 55$$

$$5x = 45$$

$$x = 9$$

Qawsyada (brackets) si sax ah looma balaadhin (expanded).

Safka labaad waa inuu ahaado $5x + 50 = 55$

b)

$$2(4x + 10) = 18$$

$$2x + 5 = 9$$

$$2x = 4$$

$$x = 2$$

Marka LHS loo qaybiyo 2, waa in aan la qaybinin qaybaha ku jira qawska (bracket).
Safka labaad waa inuu ahaado $4x + 10 = 9$

c)

$$7(x - 3) = 42$$

$$x - 3 = 6$$

$$x = 9$$

Rogga isugeynta (additive inverse) ee -3 waa $+3$, sidaas darteed 3 waa in lagu daraa labada dhinac. Safka 3aad waa inuu ahaado $x = 6 + 3$ ama $x = 9$

1) Ka hel qaladka hab kasta oo lagu xalliyo isla'eg (equation) oo ay ku jiraan qawsyo (brackets).

d)

$$5(3x + 2) = 14$$

$$8x + 10 = 14$$

$$8x = 4$$

$$x = 2$$

Qawsyada (brackets) si sax ah looma balaadhin (expanded); 5 iyo 3 waa in la isku dhuftey, oo aan lagu darin. Safka labaad waa inuu ahaado $15x + 10 = 55$

e)

$$\frac{1}{3} (2x - 5) = 15$$

$$2x - 5 = 3$$

$$2x = 8$$

$$x = 4$$

Isdhaafsigu (reciprocal) ee saddex meelood waa saddex.

Tallaabada koowaad waa in lagu dhuftey 3, ee looma qaybiyo 3.

f)

$$\frac{3}{4} (10 - 8x) = 6$$

$$\frac{30}{4} - \frac{24}{4}x = 6$$

$$-\frac{24}{4}x = -\frac{3}{2}$$

$$\begin{aligned} -x &= -\frac{3}{2} \times \frac{4}{24} \\ x &= \frac{1}{4} \end{aligned}$$

$$x = -\frac{3}{2} \times \frac{4}{24}$$

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

Waxay fududaan lahayd in marka hore lagu dhuftey isdhaafsigu (reciprocal).

2a) Xalliso isla'egtan adigoo isticmaalaya labada hab, waxaadna qortaa jumlad isbarbardhigaysa waxtarka hababka.

Marka hore balaadhin (expanding):

$$6(x - 9) = 21$$

$$6x - 54 = 21$$

$$6x = 75$$

$$x = \frac{75}{6} = \frac{25}{2}$$

Habka labaad wuxuu u baahan yahay xirfado jajab (fractions) badan, marka habka kooraad ayaa u badan inuu waxtar badan yahay.

Marka hore ku dhufasho isdhaafsiga (reciprocal):

$$6(x - 9) = 21$$

$$x - 9 = \frac{21}{6} = \frac{7}{2}$$

$$x = \frac{7}{2} + 9$$

$$x = \frac{7}{2} + \frac{18}{2}$$

$$x = \frac{25}{2}$$

2b) Xalliso isla'egtan adigoo isticmaalaya labada hab, waxaadna qortaa jumlad isbarbardhigaysa waxtarka hababka.

Marka hore balaadhin (expanding):

$$15(4x + 7) = 45$$

$$60x + 105 = 45$$

$$60x = -60$$

$$x = -1$$

Marka hore ku dhufasho isdhaafsiga (reciprocal):

$$15(4x + 7) = 45$$

$$4x + 7 = 3$$

$$4x = -4$$

$$x = -1$$

Tani waa doorasho shakhsiyeed. Labada tibaaxood waxay leeyihiin qaybiye (factor) guud oo ah 15, marka marka hore u qaybinta 15 waxay ka dhigaysaa qiimaha kuwa yaryar oo laga yaabo inay fududaato in lala shaqeeyo marka loo barbardhigo balaadhinta qawska (brackets) marka hore.

2c) Xalliso isla'egtan adigoo isticmaalaya labada hab, waxaadna qortaa jumlad isbarbardhigaysa waxtarka hababka.

Marka hore balaadhin (expanding):

$$\frac{6}{5}(3x + 4) = 30$$

$$\frac{18}{5}x + \frac{24}{5} = 30$$

$$\frac{18}{5}x = 30 - \frac{24}{5}$$

$$\frac{18}{5}x = \frac{126}{5}$$

$$x = \frac{126}{5} \times \frac{5}{18}$$

$$x = 7$$

Marka hore ku dhufasho isdhaafsiga (reciprocal):

$$\frac{6}{5}(3x + 4) = 30$$

$$3x + 4 = 30 \times \frac{5}{6}$$

$$3x + 4 = 25$$

$$3x = 21$$

$$x = 7$$

Waa fududahay in marka hore la 'furfuro' (undo) tillaabada isku dhufashada (multiplicative), sababtoo ah waa tiro dhammaystiran (integer)

$$30 \times \frac{5}{6}$$

Hubinta iyo xaqiijinta xallinta isla'egyada toosan (linear equations)



Xallinta isla'egyada ku lug leh tibaax qaws ah (bracketed expression)



Xallinta isla'egyada leh qawsyo (brackets) badan

Waxaan xallin karnaa isle'egyada (equations) leh kuwa aan la aqoon (unknowns) labada dhinac.

Tusaale ahaan

$$6(x + 3) = -2(2x + 5)$$

Waxaan ku bilaabi karnaa kordhinta (expanding) qawsyada (brackets).

$$6x + 18 = -4x - 10$$

$$6x + 18 + 4x = -4x - 10 + 4x$$

Ku dar rogaal celinta isugeynta (additive inverse) ee $-4x$

$$10x + 18 = -10$$

Xalli isle'egta (equation) laba-tallaabo ee ka dhalatay.

$$10x = -28$$

$$x = -\frac{28}{10} = -\frac{14}{5} = -2.8$$

Xallinta isle'egyada (equations) leh qawsyo (brackets) badan

Cabdi wuxuu isku dayaa xallinta isle'egtan (equation).
Ma sharixi kartaa waxa uu sameeyay tallaabo kasta?

$$2(3 - 2x) = 6(x + 5)$$

$$6 - 4x = 6x + 30$$

Kordhiyey (expanded) labada qaws (brackets)

$$6 - 10x = 30$$

Ku daray $-6x$ labada dhinac

$$-10x = 24$$

Ku daray -6 labada dhinac

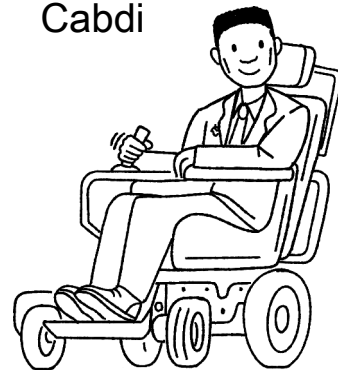
$$-x = 2.4$$

U qaybiyey (divided) labada dhinac 10

$$x = -2.4$$

Ku dhuftey/ u qaybiyey (multiplied/ divided) labada dhinac -1

Cabdi



Ma jiraa wax aad si kale u samayn lahayd?

$$2(3 - 2x) = 6(x + 5)$$

$$1(3 - 2x) = 3(x + 5)$$

$$3 - 2x = 3x + 15$$

$$3 = 5x + 15$$

$$-12 = 5x$$

$$-\frac{12}{5} = x$$

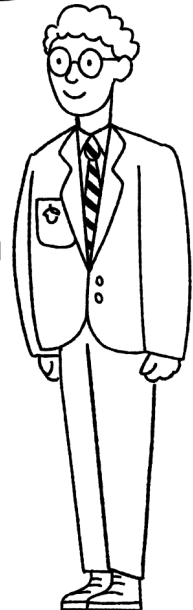
Maxaad samayn lahayd xiga?

Xulashooyin badan: 'ku dar 2x' ama 'ku dar -3' ama 'ku dar -15' ama 'ku dar -3x'

Waxaa jira qaybiye guud (common factor) labada dhinac ee isle'egta (equation). Maxaa dhacaya haddii aan ku bilaabo u qaybinta (dividing) 2?

Waxaan ku darayaa 2x markaas dhammaan qaybuhu waa kuwa togan (positive).

Axmed



Xallinta isleegyada (equations) leh qawsyo (brackets) badan

Xalli isle'egta (equation)

$$3(6 - 4x) = 4(2x - 5)$$

$$18 - 12x = 8x - 20$$

$$18 = 20x - 20$$

$$38 = 20x$$

$$19 = 10x$$

$$1.9 = x$$

Xalli isla'egta (equation)

$$8(5 - x) = 7(2x + 1)$$

$$40 - 8x = 14x + 7$$

$$40 = 22x + 7$$

$$33 = 22x$$

$$3 = 2x$$

$$1.5 = x$$

Xallinta isleegyada (equations) leh qawsyo (brackets) badan



Kee ka mid ah isleegyadan (equations) waa la fududeyn karaa ka hor xallinta?

a

$$7(x - 8) - 5(x - 8) = 24 \quad \checkmark$$

Tibaaxyo (expressions) isku mid ah oo ah $(x - 8)$

$$2(x - 8) = 24$$

b

$$5(x - 3) + 2(x + 3) = 24 \quad \times$$

$(x - 3)$ iyo $(x + 3)$ ma aha tibaaxyo (expressions) isku mid ah.

c

$$2(2x + 1) - (2x + 1) = 24 \quad \checkmark$$

Tibaaxyo (expressions) isku mid ah oo ah $(2x + 1)$

$$2x + 1 = 24$$

d

$$3(2x + 7) = 3(x + 2) \quad \checkmark$$

Labada dhinacba waa loo qaybin karaa 3

1) Xallinta (solutions) isleegyada (equations) waa la siiyay. Buuxi tillaabooyinka si aad u muujiso sida loo gaaro jawaabahan.

a)

$$5(x + 6) = 7(9x - 4)$$

$$x = 1$$

b)

$$2(4x - 5) = -6(3x - 7)$$

$$x = 2$$

c)

$$8(x - 5) + 3(x + 5) = 8$$

$$x = 3$$

1) Xallinta (solutions) isleegyada (equations) waa la siiyay. Buuxi tillaabooyinka si aad u muujiso sida loo gaaro jawaabahan.

d)

$$4(3x - 1) - 2(3x - 1) = 22$$

$$x = 4$$

e)

$$2(4x - 9) - 4(3 - 2x) = 50$$

$$x = 5$$

f)

$$3(2(x + 4) + 5) = 75$$

$$x = 6$$

2) Xalli isleegyadan (equations) laba jeer. Marka hore, balaadhi (expand) qawsyada (brackets), marka labaad, fududee ka hor balaadhinta (expanding).

Qor jumlad si aad u barbar dhigto waxtarka (efficiency).

a) $4(x + 5) + 3(x + 5) = 14$

b) $21 + 3(2x - 3) = 7(2x - 3) - 5(2x - 3)$

1) Xallinta (solutions) isleegyada (equations) waa la siiyay. Buuxi tillaabooyinka si aad u muujiso sida loo gaaro jawaabahan. Habab kale ayaa sidoo kale noqon kara kuwo sax ah.

a)

$$5(x + 6) = 7(9x - 4)$$

$$5x + 30 = 63x - 28$$

$$30 = 58x - 28$$

$$58 = 58x$$

$$x = 1$$

b)

$$2(4x - 5) = -6(3x - 7)$$

$$4x - 5 = -3(3x - 7)$$

$$4x - 5 = -9x + 21$$

$$13x = 26$$

$$x = 2$$

c)

$$8(x - 5) + 3(x + 5) = 8$$

$$8x - 40 + 3x + 15 = 8$$

$$11x - 25 = 8$$

$$11x = 33$$

$$x = 3$$

1) Xallinta (solutions) isleegyada (equations) waa la siiyay. Buuxi tillaabooyinka si aad u muujiso sida loo gaaro jawaabahan. Habab kale ayaa sidoo kale noqon kara kuwo sax ah.

d)

$$4(3x - 1) - 2(3x - 1) = 22$$

$$2(3x - 1) = 22$$

$$3x - 1 = 11$$

$$3x = 12$$

$$x = 4$$

e)

$$2(4x - 9) - 4(3 - 2x) = 50$$

$$8x - 18 - 12 + 8x = 50$$

$$16x - 30 = 50$$

$$16x = 80$$

$$x = 5$$

f)

$$3(2(x + 4) + 5) = 75$$

$$3(2x + 8 + 5) = 75$$

$$3(2x + 13) = 75$$

$$2x + 13 = 25$$

$$2x = 12$$

$$x = 6$$

2) Xalli isleegyadan (equations) laba jeer. Marka hore, balaadhi (expand) qawsyada (brackets), marka labaad, fududee ka hor balaadhinta (expanding).

Qor jumlad si aad u barbar dhigto waxtarka (efficiency).

a) $4(x + 5) + 3(x + 5) = 14$

$$4(x + 5) + 3(x + 5) = 14$$

$$4x + 20 + 3x + 15 = 14$$

Tusaale: Labada habba waxay ahaayeen kuwo waxtar leh (efficient). Fududaynta (simplifying) marka hore waxay ka dhigtay in la arko qaybiye guud (common factor) oo meesha ka saaray tallaabo (step).

$$7(x + 5) = 14$$

$$7x + 35 = 14$$

$$x + 5 = 2$$

$$7x = -21$$

$$x = -3$$

$$x = -3$$

2b) Xalli isleegyadan (equations) laba jeer. Marka hore adoo balaadhinaya (expanding) marka hore, marka labaad adoo fududaynaya (simplifying) ka hor balaadhinta (expanding).

Qor jumlad (sentence) si aad u barbardhigto waxtarka (efficiency).

$$21 + 3(2x - 3) = 7(2x - 3) - 3(2x - 3)$$

$$21 + 6x - 9 = 14x - 21 - 6x + 9$$

$$6x + 12 = 8x - 12$$

$$12 = 2x - 12$$

$$24 = 2x$$

$$x = 12$$

$$21 + 3(2x - 3) = 7(2x - 3) - 3(2x - 3)$$

$$21 + 3(2x - 3) = 4(2x - 3)$$

$$21 = 2x - 3$$

$$24 = 2x$$

$$x = 12$$

Tusaale: Fududaynta (simplifying) marka hore waxay u muuqatay mid waxtar leh (efficient). Ma aysan ahayn lagama maarmaan in la balaadhiyo qawsyada (brackets) waxaana loo baahnayd tirooyin taban (negative numbers) oo yar.

Isleegyada (equations) ay ku jiraan qaws (bracket) lagu dhuftey (multiplied) eray (term) waxaa lagu xallin karaa laba siyood.

Haddii eraygu (term) yahay mid joogto ah (constant) iyo qaybiye (factor) eray kasta oo kale, markaas qaybinta (dividing) marka hore ayaa laga yaabaa inay tahay tan ugu fudud. Haddii kale, balaadhinta (expanding) qawsyada (brackets) ayaa laga yaabaa inay tahay tan ugu fudud.

Isleegyada (equations) leh qawsyo (brackets) badan oo la isku daray (added together) waa la xallin karaa.

Waxay noqon kartaa mid waxtar leh (helpful) in la raadiyo qaybiyeyaasha guud (common factors) ama tibaaxaha isku midka ah (identical expressions) si loo fududeeyo (simplify) ka hor xallinta (solving).