

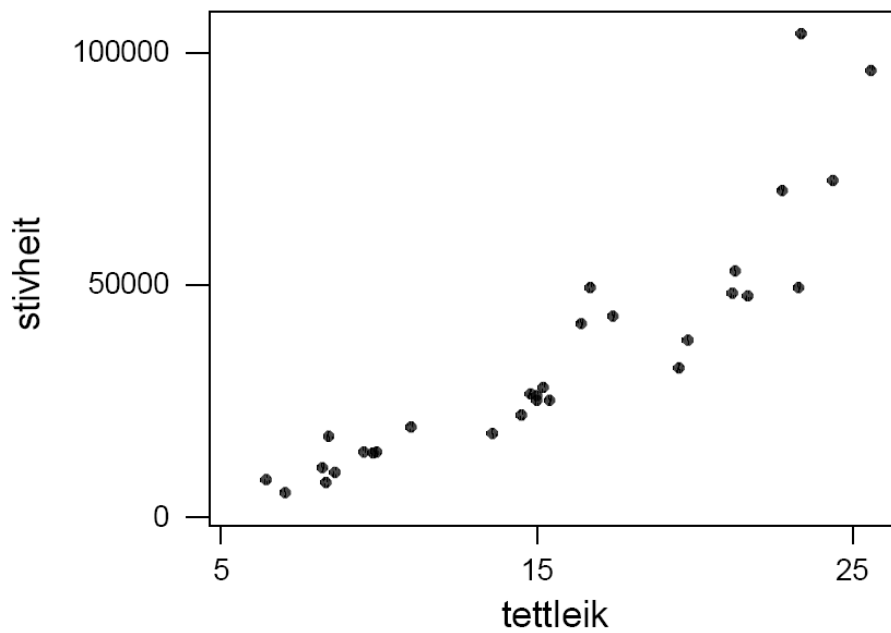
# SAMANHENG MELLOM STIVHEIT OG TETTELEIK TIL EIT TREPRODUKT

Row stivheit tettleik

|    |        |      |
|----|--------|------|
| 1  | 14184  | 9,5  |
| 2  | 17502  | 8,4  |
| 3  | 14007  | 9,8  |
| 4  | 19443  | 11,0 |
| 5  | 7573   | 8,3  |
| 6  | 14191  | 9,9  |
| 7  | 9714   | 8,6  |
| 8  | 8076   | 6,4  |
| 9  | 5304   | 7,0  |
| 10 | 10728  | 8,2  |
| 11 | 43243  | 17,4 |
| 12 | 25319  | 15,0 |
| 13 | 28028  | 15,2 |
| 14 | 41792  | 16,4 |
| 15 | 49499  | 16,7 |
| 16 | 25312  | 15,4 |
| 17 | 26222  | 15,0 |
| 18 | 22148  | 14,5 |
| 19 | 26571  | 14,8 |
| 20 | 18036  | 13,6 |
| 21 | 96305  | 25,6 |
| 22 | 104170 | 23,4 |
| 23 | 72594  | 24,4 |
| 24 | 49512  | 23,3 |
| 25 | 32207  | 19,5 |
| 26 | 48218  | 21,2 |
| 27 | 70453  | 22,8 |
| 28 | 47661  | 21,7 |
| 29 | 38138  | 19,8 |
| 30 | 53045  | 21,3 |

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**Plott av stivheit mot tettleik**



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## Regression Analysis: stivheit versus tettleik

The regression equation is  
 $stivheit = -25522 + 3889 \cdot tettleik$

| Predictor | Coef   | SE Coef | T     | P     |
|-----------|--------|---------|-------|-------|
| Constant  | -25522 | 6103    | -4,18 | 0,000 |
| tettleik  | 3888,9 | 369,9   | 10,51 | 0,000 |

S = 11620      R-Sq = 79,8%      R-Sq(adj) = 79,1%

### Analysis of Variance

| Source         | DF | SS          | MS          | F      | P     |
|----------------|----|-------------|-------------|--------|-------|
| Regression     | 1  | 14921915254 | 14921915254 | 110,52 | 0,000 |
| Residual Error | 28 | 3780366291  | 135013082   |        |       |
| Total          | 29 | 18702281544 |             |        |       |

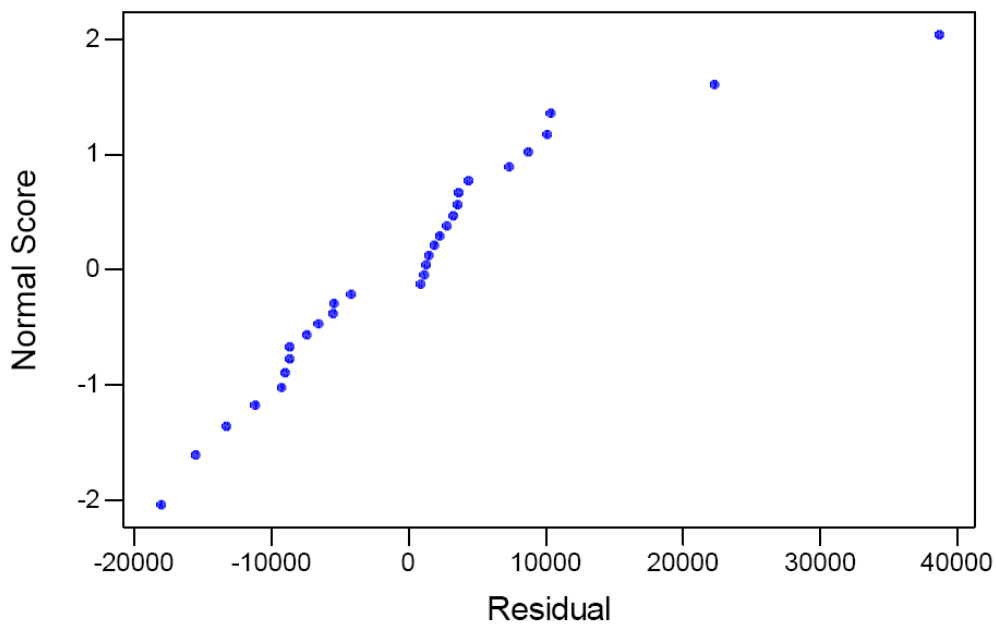
### Unusual Observations

| Obs | tettleik | stivheit | Fit   | SE Fit | Residual | St Resid |
|-----|----------|----------|-------|--------|----------|----------|
| 21  | 25,6     | 96305    | 74034 | 4306   | 22271    | 2,06R    |
| 22  | 23,4     | 104170   | 65479 | 3620   | 38691    | 3,50R    |

R denotes an observation with a large standardized residual

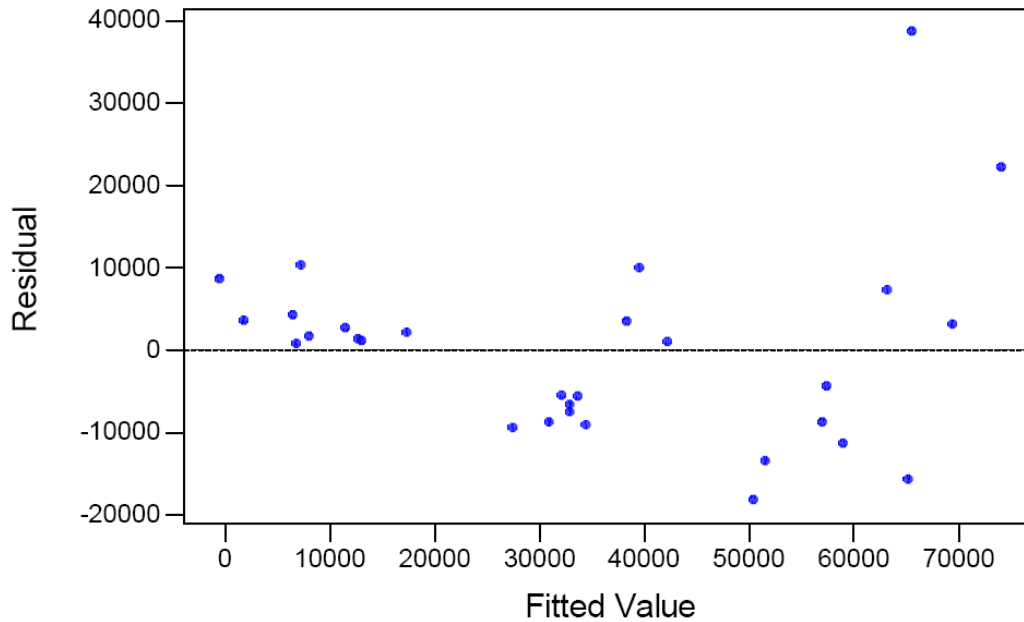
## Normal Probability Plot of the Residuals

(response is stivheit)



## Residuals Versus the Fitted Values

(response is stivheit)



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### Regression Analysis: logstiv versus tettleik

The regression equation is  
 $\text{logstiv} = 8,25 + 0,125 \text{ tettleik}$

| Predictor | Coef     | SE Coef  | T     | P     |
|-----------|----------|----------|-------|-------|
| Constant  | 8,2516   | 0,1281   | 64,39 | 0,000 |
| tettleik  | 0,125190 | 0,007767 | 16,12 | 0,000 |

S = 0,2440      R-Sq = 90,3%      R-Sq(adj) = 89,9%

#### Analysis of Variance

| Source         | DF | SS     | MS     | F      | P     |
|----------------|----|--------|--------|--------|-------|
| Regression     | 1  | 15,464 | 15,464 | 259,81 | 0,000 |
| Residual Error | 28 | 1,667  | 0,060  |        |       |
| Total          | 29 | 17,130 |        |        |       |

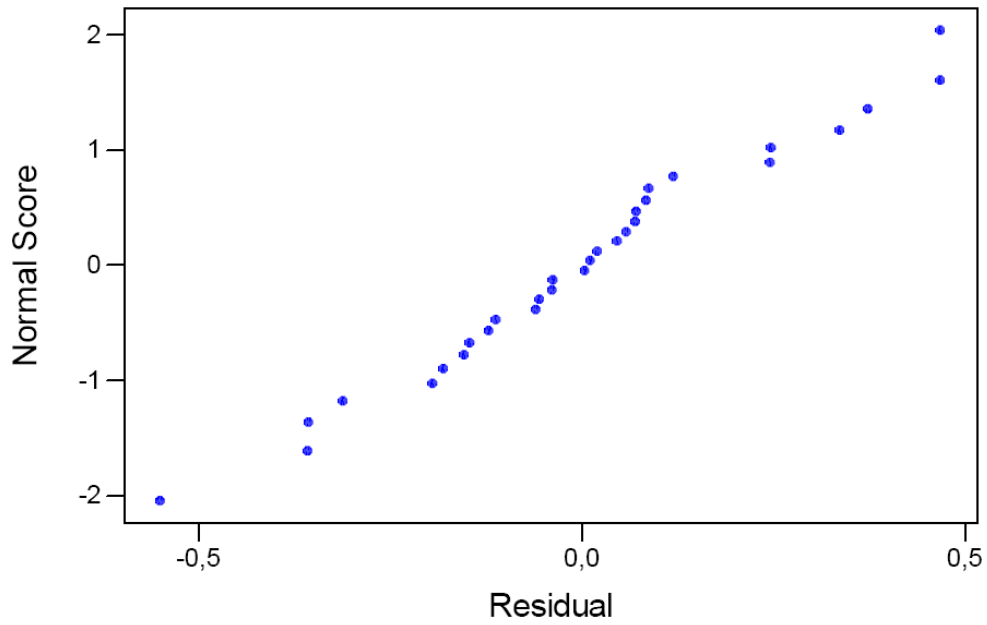
#### Unusual Observations

| Obs | tettleik | logstiv | Fit    | SE Fit | Residual | St Resid |
|-----|----------|---------|--------|--------|----------|----------|
| 9   | 7,0      | 8,5762  | 9,1279 | 0,0794 | -0,5517  | -2,39R   |

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## Normal Probability Plot of the Residuals

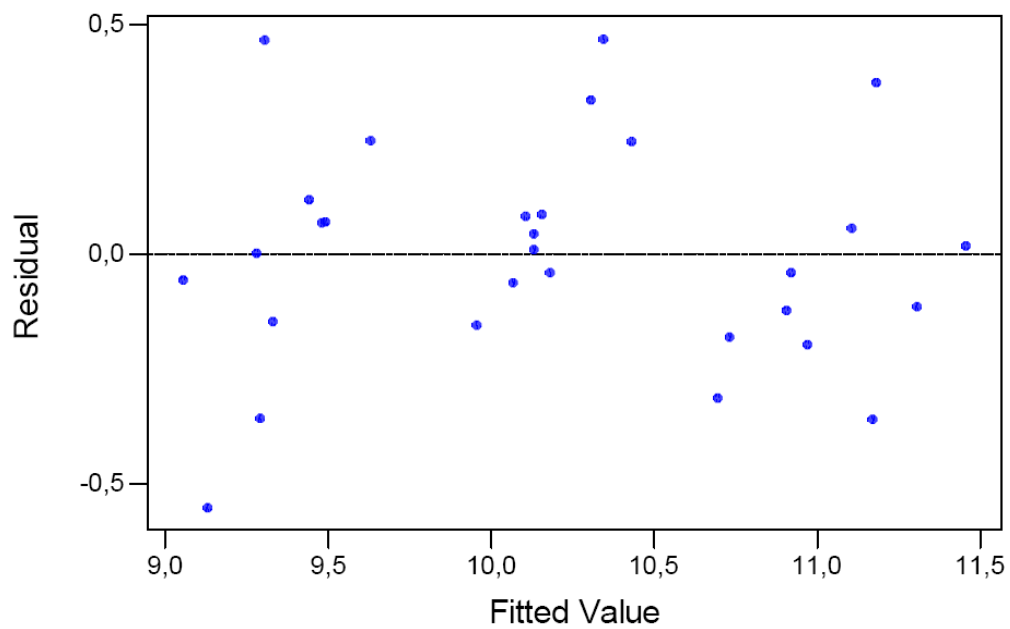
(response is logstiv)



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## Residuals Versus the Fitted Values

(response is logstiv)



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### Predikterte verdier for nye observasjonar

| New Obs | Fit    | SE Fit | 95,0% CI          | 95,0% PI           |
|---------|--------|--------|-------------------|--------------------|
| 10      | 9,5035 | 0,0616 | ( 9,3774; 9,6296) | ( 8,9881; 10,0189) |

| New Obs | Fit     | SE Fit | 95,0% CI            | 95,0% PI           |
|---------|---------|--------|---------------------|--------------------|
| 15      | 10,1295 | 0,0447 | ( 10,0379; 10,2210) | ( 9,6214; 10,6375) |

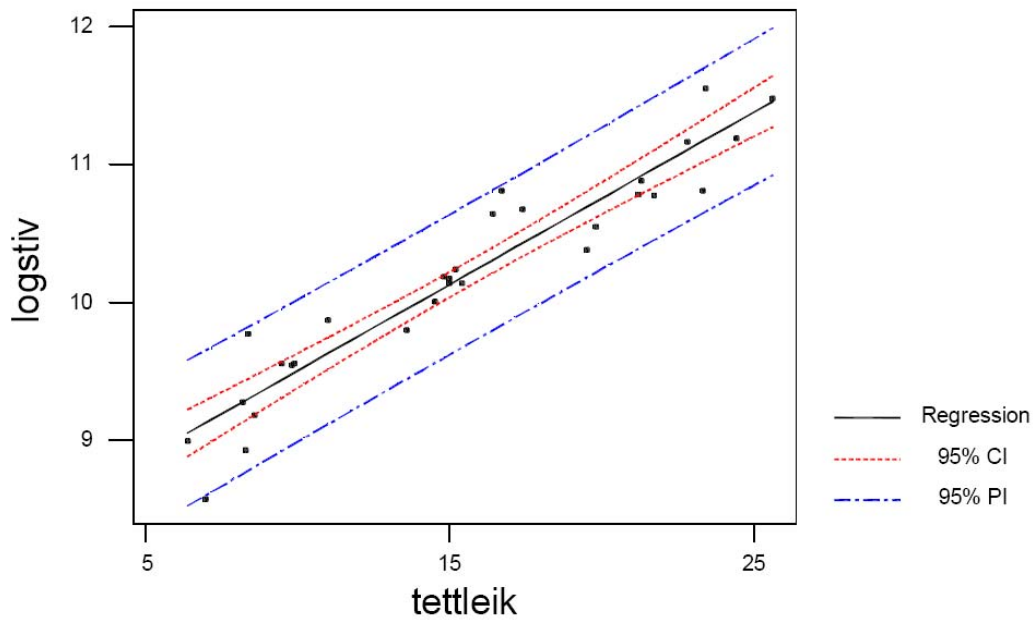
| New Obs | Fit     | SE Fit | 95,0% CI            | 95,0% PI            |
|---------|---------|--------|---------------------|---------------------|
| 20      | 10,7554 | 0,0568 | ( 10,6391; 10,8717) | ( 10,2423; 11,2685) |

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### Prediksjon og konfidensintervall

$$\text{logstiv} = 8,25161 + 0,125190 \text{ tettleik}$$

S = 0,243964 R-Sq = 90,3 % R-Sq(adj) = 89,9 %



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