**Simplify each expression.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | $$6\left(-2x\right)-14x$$ |  | $$\frac{50x-40y}{2}$$ |

**Evaluate each expression.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | $$-7x^{2}+4x-2 when x=3$$ |  | $$\frac{3a-4b}{ab} when a=-\frac{1}{3} and b=\frac{1}{4}$$ |

1. What is the total weight capacity of a bus that can carry 54 passengers, with each weighing 50kg?

**ANSWER**

**Simplify each expression.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | $$6\left(-2x\right)-14x$$$$=-12x-14x$$$$=-26x$$ |  | $$\frac{50x-40y}{2}$$$$=\frac{50x}{2}-\frac{40y}{2}$$$$=25x-20y$$ |

**Evaluate each expression.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | $$-7x^{2}+4x-2 when x=3$$$$=-7\left(3\right)^{2}+4\left(3\right)-2$$$$=-7\left(9\right)+12-2$$$$=-63+10=-57$$ |  | $$\frac{3a-4b}{ab} when a=-\frac{1}{3} and b=\frac{1}{4}$$$$=\frac{3\left(-\frac{1}{3}\right)-4\left(\frac{1}{4}\right)}{\left(-\frac{1}{3}\right)\left(\frac{1}{4}\right)}$$$$=\frac{-1-1}{-\frac{1}{12}}=\frac{-2}{-\frac{1}{12}}$$$$=2÷\frac{1}{12}$$$$=2⋅\frac{12}{1}$$$$=24$$ |

1. What is the total weight capacity of a bus that can carry 54 passengers, with each weighing 50kg?

$$54 passengers\left(\frac{50kg}{passenger}\right)=2700 kg$$