Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_\_\_\_

5.4 – Direct Variation

**Set up a proportion and solve.**

1. If $y$ varies directly as $x$ and $y=198$ when $x=22$, find $y$ when $x=182$.

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1. If $y$ varies directly as $x$ and $y=80$ when $x=32$, find $x $when $y=100$.

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1. The perimeter, $P$, of an equilateral triangle varies directly as the length of a side. If the perimeter is $153 cm$ when the side length is $51 cm$, what would be the perimeter is the side length is $81 cm$?

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1. The circumference, $C$, of a circle varies directly as the diameter. If the circumference is $44cm$ when the diameter is $14 cm$, find the circumference when the diameter is $21 cm$.

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1. At a given time, the length, $L$, of the shadow of an object varies directly as the height of the object. If the shadow is $27 ft$ when the height of the object is $12 ft$, what is the height of the object if the shadow is $18 ft$?

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6. Solve: $\frac{2n-3}{5}=\frac{n+2}{6}$ 7. Solve: $3\left(5y+2\right)-y=2\left(y-3\right)$