**Evaluate the expression for the given value of the variable.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | $$\frac{32}{n}+3^{3}-20 when n=8$$ |  | $$r^{3}-12÷r when r=3$$ |
|  | $$b+6÷4 when b=2.5$$ |  | $$2r^{2}-10 when r=2$$ |
|  | $$16-\frac{24}{6} when b=6$$ |  | $$\frac{7}{10}⋅y-\frac{3}{10} when y=\frac{1}{7}$$ |
|  | $$2⋅y^{2}+11 when y=2$$ |  | $$11a when a=4$$ |
|  | $$\frac{8}{3}⋅x when x=\frac{1}{4}$$ |  | $$\frac{24}{2x} when x=3$$ |
|  | $$\frac{9}{16}-p when p=\frac{3}{8}$$ |  | $$\left(6w\right)^{2} when w=2$$ |
|  | $$2y^{2} when y=16$$ |  | $$2\left(t^{3}\right) when t=1$$ |
|  | $$\left(4g\right)^{3} when g=3$$ |  |  |

**Evaluate the expression for the given value of the variable.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | $$\frac{r^{2}-3}{2r} when r=1$$ |  | $$\frac{4x-2}{7+\left(x^{2}-2\right)} when x=2$$ |
|  | $$\frac{\left(9-x\right)^{2}+4}{17} when x=1$$ |  | $$\frac{y^{5}-12}{y\left(z^{2}-5\right)} when y=2 and z=5$$ |
|  | $$\frac{\left(10+2x\right)}{y^{2}-10} when x=4 and y=6$$ |  |  |

**ANSWER**

**Evaluate the expression for the given value of the variable.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | $$\frac{32}{n}+3^{3}-20 when n=8$$$$=\frac{32}{8}+3^{3}-20$$$$=4+27-10$$$$=31-10$$$$=21$$ |  | $$r^{3}-12÷r when r=3$$$$=3^{3}-12÷3$$$$=27-\frac{12}{3}$$$$=27-4$$$$=23$$ |
|  | $$b+6÷4 when b=2.5$$$$=2.5+6÷4$$$$=2.5+\frac{6}{4}$$$$=2.5+1.5$$$$=4$$ |  | $$2r^{2}-10 when r=2$$$$=2⋅2^{2}-10$$$$=2⋅4-10$$$$=8-10$$$$=-2$$ |
|  | $$16-\frac{24}{6} when b=6$$$$=16-\frac{24}{6}$$$$=16-4$$$$=12$$ |  | $$\frac{7}{10}⋅y-\frac{3}{10} when y=\frac{1}{7}$$$$=\frac{7}{10}⋅\frac{1}{7}-\frac{3}{10}$$$$=\frac{1}{10}-\frac{3}{10}$$$$=-\frac{2}{10}$$$$=-\frac{1}{5}$$ |
|  | $$2⋅y^{2}+11 when y=2$$$$=2⋅2^{2}+11$$$$=2⋅4+11$$$$=8+11$$$$=19$$ |  | $$11a when a=4$$$$=11⋅4$$$$=44$$ |

|  |  |  |  |
| --- | --- | --- | --- |
|  | $$\frac{8}{3}⋅x when x=\frac{1}{4}$$$$=\frac{8}{3}⋅\frac{1}{4}$$$$=\frac{2}{3}$$$$=\frac{2}{3}$$ |  | $$\frac{24}{2x} when x=3$$$$=\frac{24}{2(3)}$$$$=4$$ |
|  | $$\frac{9}{16}-p when p=\frac{3}{8}$$$$=\frac{9}{16}-\frac{3}{8}$$$$=\frac{9}{16}-\frac{6}{16}$$$$=\frac{3}{16}$$ |  | $$\left(6w\right)^{2} when w=2$$$$=\left(6⋅2\right)^{2}$$$$=12^{2}$$$$=144$$ |
|  | $$2y^{2} when y=16$$$$=2⋅16^{2}$$$$=2⋅256$$$$=512$$ |  | $$2\left(t^{3}\right) when t=1$$$$=2\left(1^{3}\right)$$$$=2\left(1\right)$$$$=2$$ |
|  | $$\left(4g\right)^{3} when g=3$$$$=\left(4⋅3\right)^{3}$$$$=12^{3}$$$$=1728$$ |  |  |

**Evaluate the expression for the given value of the variable.**

|  |  |  |  |
| --- | --- | --- | --- |
|  | $$\frac{r^{2}-3}{2r} when r=1$$$$=\frac{1^{2}-3}{2\left(1\right)}$$$$=\frac{1-3}{2}$$$$=\frac{-2}{2}$$$$=1$$ |  | $$\frac{4x-2}{7+\left(x^{2}-2\right)} when x=2$$$$=\frac{4⋅2-2}{7+\left(2^{2}-1\right)}$$$$=\frac{8-2}{7+\left(4-1\right)}=\frac{6}{10}$$$$=\frac{3}{5}$$ |
|  | $$\frac{\left(9-x\right)^{2}+4}{17} when x=1$$$$=\frac{\left(9-1\right)^{2}+4}{17}$$$$=\frac{8^{2}+4}{17}$$$$=\frac{64+4}{17}$$$$=\frac{68}{17}$$$$=4$$ |  | $$\frac{x^{5}-12}{x\left(z^{2}-5\right)} when x=2 and z=5$$$$=\frac{2^{5}-12}{2\left(5^{2}-5\right)}$$$$=\frac{32-12}{2\left(25-5\right)}$$$$=\frac{20}{2\left(20\right)}$$$$=\frac{1}{2}$$ |
|  | $$\frac{\left(10+2x\right)}{y^{2}-10} when x=4 and y=6$$$$=\frac{\left(10+2\left(4\right)\right)}{6^{2}-10}$$$$=\frac{\left(10+8\right)}{36-10}$$$$=\frac{18}{26}$$$$=\frac{9}{13}$$ |  |  |